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A PANTHEISTIC VIEW OF THE UNIVERSE

VIEW OF THE
UNIVERSE

BY
JOHN W. WILSON

AMERICAN SCIENTIFIC LITERATURE
SERIES

A PANTHEISTIC VIEW OF THE UNIVERSE

by

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A PANTHEISTIC
VIEW OF THE
UNIVERSE

JOHN BULL

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CHAPTER ONE

THE NEED FOR CERTAINTY

THERE ARE many things about this mysterious Universe of ours which we should all like to know. Our concern is not so much with the facts about the Universe supplied to us by science as with the significance of these facts. We want to know not only what the Universe is but why it is what it is. This science fails to tell us.

WHAT WE WANT TO KNOW

Is the Universe a "fortuitous concourse of atoms" as science sees and deals with it, or is there Mind and purpose behind it all? If there is, what kind of a mind and what purpose?

Does God exist? If so, what connection is there between God and Nature?

Is the familiar world we know through our senses the "real" world or do our senses give us a distorted or incomplete picture of it?

What do we mean when we say a thing is good or bad? Are the things we value of universal validity or are

they subjective judgements on our part? Is what we call the moral law, a law of universal application valid for all times and all places and under all circumstances, or is it merely a man-made code of conduct designed to further human ends?

Are we free agents in what we do? Am I, for example, writing this book of my own free will or am I being compelled to do so because I am what my genetic structure and my environment have made me?

WHY WE WANT TO KNOW

The answers to many of these questions are still in dispute. Philosophers and theologians have argued about them for centuries. They have put forward their own theories about the meaning of the Universe, but these theories have, on the whole, been so contradictory that they have had a tendency to cancel each other out.

Some agreement has been reached in the sphere of Ethics (they all seem to agree that justice is better than injustice), but even if we do satisfactorily solve the problem of human relationships we are still no nearer knowing why the Universe is what it is.

These differences of opinion among the great thinkers are inevitable from the nature of the questions asked. The answers cannot be found by relying entirely on the empirical methods of investigation used by science and common sense. Too much has to be based on inference. Science can give us facts about the Universe, the truth of which can be verified by rational means, but the meaning or significance of these facts is, and seemingly always will be, a matter of speculation. How can science

or even commonsense prove to us what is ultimately good or bad without having some reference point from which to judge, a reference point which itself must be a matter of inference?

As the philosophers and theologians cannot agree among themselves what is the common man to believe? Is he to accept a religious doctrine as final truth or is he to carry on with the apparently hopeless task of finding answers to his questions that meet his needs and are at the same time intellectually satisfying?

Perhaps the most honest thing he could do would be to admit that he does not and cannot know the answers. If he accepts a religious belief as ultimate truth or comes to the conclusion that science will eventually solve all his problems for him, he is, in either case, being dogmatic and making an affirmation without knowing all the relevant facts.

The trouble with the doubters' "don't know" or "cannot know" attitude to the problems of life is that it fails to fulfil a human need. Sitting on the fence waiting for more and more evidence to turn up before making a decision is psychologically demoralising. Human nature, if it is to fulfil itself needs certainty.

The agnostic may say that although he is sceptical about anything which cannot be verified by rational means he is still capable of leading the "good" life. He can still make ethical judgements and act on these judgements without believing in what to him is metaphysical nonsense.

But can he or anyone else escape this metaphysical nonsense? If the confirmed sceptic regards human wel-

fare as an end in itself (and most of them do), he still cannot give reasons why human welfare is of value except man's own desire for welfare. What he does is accept, as a fact valid beyond dispute, that human welfare (or human desire) is a good in its own right and needs no intellectual justification. For his ultimate value, his end in itself, he too has to enter the realm of metaphysical nonsense. The sceptic's belief that human welfare (or human desire) is good as an end in itself does not spring from reason. In the last analysis it is an "*act of faith*".

All men even agnostics have faith, i.e. an unshakeable belief in some end-in-itself which cannot be justified by reason. They cannot help themselves. Life would be impossible if we did not take something on trust.

These non-rational ends-in-themselves to which all men subscribe may or may not be linked up with a belief in the supernatural and do not necessarily have "humane" consequences. An end in itself may be a political ideology such as communism or a belief in the superiority of the white (or black, or yellow) race. It may be Humanism, which carries with it the conviction that man's destiny lies in his own hands.

But whatever our end-in-itself may be it gives stability and purpose to life. The believer in a benevolent deity finds comfort in the thought. His hopes for the future both in this world and in the next are high.

The atheist too has resolved his doubts. His hopes are centred on this world, not on the next. Although his convictions have led him to believe that there is no heaven, they have also led him to the belief that there

is no hell. The atheist has reconciled himself to oblivion in a determinist material Universe.

Both the atheist and the believer have "committed" themselves to beliefs which in the last resort are non-rational. But by doing so they have lost their ifs and buts. They have achieved a peace of mind which only comes with certainty. It is the uncommitted poor old agnostic who is left crying in the wilderness not knowing what the fates have in store for him.

It does seem, then, that we have to make up our minds one way or the other on these fundamental questions *even at the risk of being wrong*. Both the atheist and the believer may be dogmatic but one of them at least has found the right answer. Either there is a benevolent Deity or there is not. Each has a chance of being right and this chance the uncommitted man never gets. The agnostic is a man who is at the mercy of every little eddy and current in the stream of human ideas.

To satisfy my need for certainty, for something definite in which to believe, is my sole justification for writing these essays. I realise that all I can do is to say how these problems appear to me and, as far as I can, give my reasons—rational ones if possible. I may be wrong in my assumptions. I do not know but neither does anyone else for that matter. The final answers have yet to be found. I realise that by saying: This is it! I am hardening into certainties propositions which at best may be no more than probabilities. Yet I feel that I have a right and even an obligation to do so. The need for certainty is so great.

CHAPTER TWO

WHAT IS TRUTH

WE WANT to know the truth about the questions we ask ourselves and, if we are to get the certainty we need, we want the whole truth and nothing but the truth. We want no half truths. We want no false assumptions, traditional or otherwise, masquerading as truth. We want no "personal" truths if we can help it. We want objective truth that is final and absolute—if we can get it.

But what is this absolute truth we are so anxious to find and how are we to recognise it as such? When we say that a certain statement is true, how do we know it to be so? Is it because we have "immediate" knowledge of its truth, as we do when we see without any shadow of doubt that two plus two equal four and always will do? Or is it because we have carefully weighed up the evidence for and against and passed a reasoned judgement on it? Or do we just feel in our bones that it *must* be true?

It seems there are different ways in which we arrive at the truth, and the whole question of how we get our

knowledge, and what reliance we can place on it when we have got it, is full of perplexing difficulties.

THE RATIONAL VIEW

Common sense might say that truth is simple. If a statement is true it corresponds to facts. Just that, no more, no less. If I say that I travelled on a bus this morning; that the sun rose at six a.m. yesterday; that the battle of Waterloo was fought in 1815, I am making statements which common sense regards as true if they can be verified.

Common sense also thinks of these statements as being true for all time. If it was true in 1815 that the battle of Waterloo was fought in that year, it was still true in 1915, and will still be so in 2015. A lapse of time in itself does not affect the truth of any of the above statements.

Science takes a similar view. Science collects its facts by observation. These it studies, notes their similarities and differences, and generalises them into "laws of Nature". By doing so it finds pointers to new "facts" as yet outside the range of observation. These new untried facts it sets up as hypotheses and subjects them to a barrage of criticism and experiment. If they pass this test they come to be regarded as "true" facts. If they do not they are discarded.

Science moreover, by studying its data, is enabled not only to say what is, but also what will be, as witness the remarkable degree of accuracy with which it predicts an eclipse. The range of science not only covers the past, but stretches out into the future.

The methods science uses to achieve these remarkable results is organised common sense. Science ignores metaphysical propositions as these can be neither verified nor falsified by rational means. To science they are meaningless. Science will have no truck with suppositions. Truth has to be demonstrated.

The scientific common-sense way to truth is eminently satisfying. It fits into our way of thinking and is clear and unambiguous. Moreover, it works.

Science and common sense may think they have the last say; that no method of getting at the truth is, or can be, superior to theirs. But let us see what philosophy has to say.

PHILOSOPHICAL DOUBTS ABOUT COMMON SENSE

Philosophers, or at least some of them, maintain that there is no certainty about the facts and predictions of science. At best they are only probabilities. They point out that any statement we make can be proved to be true only if it refers to past events. We may make shrewd guesses about the future, and our guesses may turn out to be right, but of this we have no certainty. The indubitable truth about any future event cannot be known prior to the event. All it is possible for us to be sure about is that which has already happened. It follows that the whole truth about the Universe in its totality, i.e. as a living thing having duration, cannot be known until all future events have taken place. How, for example, can we know for what purpose (if any) the Universe serves until it has fulfilled that purpose?

Yet we persist in thinking of a truth that is the whole

truth and nothing but the truth; a truth that is valid for all times and places under all circumstances, and which corresponds to permanent facts. But we try to find this "eternal" truth in a Universe in which the facts are not permanent.

The Universe itself and the conditions in it are continually changing. Physically, psychologically, and spiritually the whole cosmos is in a state of flux. What was true of the Universe in the past is less so now, and presumably will be still less so in the future. Moreover as times goes on and we acquire more knowledge, "facts" which we once regarded as true have to be modified and in some cases are shewn to be false.

The changes that are taking place in the Universe can be seen in the earth itself pointed out to us by geologists; in biological differences brought about by evolution; and in our moral ideas which our record of past events tells us are different now from what they were even a few hundred years ago.

It is impossible for us to find a truth that is valid for all times and places and under all circumstances and which corresponds to permanent facts unless we can find a hard core of unchanging facts to which it can correspond. Many people think there are things about the Universe, such as the laws of Nature and moral principles, which never change and that the absolute truth about these laws and principles it is possible to find. But with what justification do they hold this view?

The laws of Nature are not "necessary" laws. They are of *our* making. Over a long period of time we have noticed the uniform manner in which Nature acts and

these uniformities we have come to regard as "eternal" laws, applicable in all times and places and under all circumstances.

But our observations of Nature only cover its workings in the past. It may seem highly probable that Nature will continue to act in the same uniform manner in the future but of this we cannot be sure. Is it not possible that in a Universe where everything else is changing the so-called laws which govern it will also change? And could not some cosmic upheaval play havoc with our neatly packaged laws of Nature?

The same thing applies to what we call 'moral principles'. When we say to anyone "Be good", we are, or think we are, asking them to conform to a self-evident moral principle that is valid for all times and places and which corresponds to permanent facts; in this case, to ethical facts. But where can we find an ethical fact that is not modified or completely changed with the passage of time? If there is such a thing as a permanent ethical fact it is one we have still to find. It is nonsense to regard the injunction, "Be good", as an expression of some fixed moral principle until we have finally established what good is. Nowhere in our record of past events can we trace a moral principle that has remained constant even up to the present where our observation ends. What justification then have we for postulating a moral principle that was fixed and immutable in the past and will still be so in the future?

To confuse us still further in our search for truth some philosophers throw doubt on the validity of the facts about the material Universe which we have accumulated

through our senses; facts which we believe correspond to reality as we can, or think we can, verify them. They maintain that the world we perceive through our senses is not the real world at all; that we never perceive an object, even such a familiar object as a chair, as it truly is.

They point out the difference between the object as perceived and the underlying "substance" of the object, sometimes referred to as the thing-in-itself.

When we examine a material object we gain knowledge of it through our senses. We see it, feel it, smell it, taste it, hear it, and so on. But the knowledge we gain is not of the "substance" of the object but only of the qualities this substance exhibits, such as colour, hardness, smell, taste, and so on. The substance itself does not make any impression on our senses. For all we can know this underlying substance does not exist. All we do know about a spatial object, such as a chair, are its qualities which are not spatial. The thing-in-itself cannot be described.

Common sense—if it thinks about it—will retort that an object *must* consist of something of the same size and shape as the object viewed to which the qualities we perceive belong. But if we can know only of the qualities can common sense tell us what this substance is?

According to another theory the mind of the perceiver is never in direct contact with the object. Intervening are what are called sense data. These are impressions such as a patch of colour, a feeling of hardness, a smell, a taste and so on, which the mind receives through the senses. From this confused bundle of sensations the mind

“constructs” what it believes to be an image of an object.

But the mind has no guarantee that the sense data it receives truly represents an object at all. This data may be provided from memory by the mind itself, as when we imagine we see an object, or when we dream of one. In both cases there is an image of an object in the mind but no external object to which it corresponds.

As the mind has only sense data from which to construct an image and as the image can be present in the mind, without an object to perceive, how can the mind know that *any* image it constructs is a true representation of anything external to itself?

Common sense might say that if the mind is in any doubt about an image it has constructed from sense data it can refer to other minds for confirmation. But here again a doubt is thrown in. No two people viewing the same object receive identical sense data, as no two people are alike. Their perceptions are coloured by personal idiosyncrasies, by the state of their health, by colour blindness, and other defects in the apparatus of sense. One person sees a patch of colour which he has been taught to call green. Another person sees the same patch of colour which he too has been taught to call green. But we have no means of knowing whether both persons receive the same sense impressions of what is admittedly the same patch of colour. They both call it green not because the impressions this patch of colour makes are the same in both cases, but because both of them have been taught to put the same label on what, as far as we know, are different bundles of sense data.

How then can we know with any certainty what an object really is if we have only sense data to provide us with information? If sense data vary between one individual and another, how can we know which, or whose, data corresponds to facts?

When we examine a chair we see it, or think we see it, as a solid durable object existing in time and space. But does this solid durable object have an independent existence outside ourselves, or is it just an idea in the mind? If the mind is cut off from the external world by a screen of sense data, and as we have no means of knowing whether or not these sense data correspond to facts, what grounds have we for assuming that the external world exists at all?

Philosophy also criticises with considerable justification science's analytical method of dealing with reality. When science wants to know what a chair really is, it pulls it to pieces and analyses it. It strips the wood to its fibres, studies these in a laboratory and finds they are made up of chemical elements. The physicist then takes over and splits these chemical elements into atoms, which, after further splitting, he claims are no more than particles of electricity whirling about in space.

During this process of analysis the qualities we perceive (or think we perceive) in a chair such as colour, hardness, etc. disappear. An exhaustive analysis leaves nothing to perceive. Splitting a chair into "parts" and studying the parts in detail gives precise information about the parts but falsifies the truth about the chair as an integrated whole. A chair, like any other material object,

is qualitatively something more than the sum of its parts. One cannot sit on a motion in space.

INTUITION

The common sense scientific approach to truth and philosophical speculations to achieve the same end have one thing in common. Both are mental processes. Each relies in its own way exclusively on the mind for its findings. Both are rational.

But does the mind with all its juggling with sense data and its speculations about these data give us *all* the knowledge we get and need? It seems not. There is another channel to truth which we call intuition.

Intuition does not spring from sense data and speculative reason. It is "immediate" instinctive knowledge. It is a feeling we have that such and such a proposition *must* be true or such and such a course of action *must* be right. Intuition is, in a sense, non-rational, as intuitive truths cannot be verified by intellectual means.

But in spite of this we cannot ignore intuitive knowledge. If we do how can we account for values? How can reason tell us what is ultimately good or bad? Reason may be able to explain why such and such course of action is good for, say, human welfare, but it cannot tell us why human welfare itself is of value. Human welfare is an end in itself which we intuitively believe carries its own justification.

We rely on intuition far more than common sense would like to admit. Rationalists should not forget that all trains of reasoning whether philosophical, theological, or even scientific, have to start from a given standpoint;

from some self-evident truth which is apprehended intuitively. Decartes found his starting point in his famous "I think therefore I am". Theology starts from "revealed" knowledge which it accepts as indubitably true. Even the hard-headed scientist gets a "hunch" now and then and makes a jump ahead of the images he has constructed from sense data. It is intuition which provides him with his hypotheses.

At deeper levels intuition merges into instinct. The difference between the scientist's hunch and a primary instinct like the instinct of self-preservation is one of degree not of kind. Both provide us with extra-sensory knowledge.

Although a hunch and instinct are the opposite poles of intuition both are fairly reliable guides to truth. But they seem to serve different purposes. A hunch very often leads to *new* knowledge whereas instinct is, in the main, concerned with the knowledge of how to preserve life, with maintaining the evolutionary status quo. The former is progressive, the latter is not.

The lower animals such as insects rely exclusively on instinct. Their actions are automatic. They have no choice. In the higher animals there are glimmerings of intuition at a higher level as when a lioness intuitively knows that it has to teach its young to hunt. This form of intuition may seem to us to be instinctive—we may classify it as such—but the intuition, or instinct, to teach its young, is at a higher level than the lioness's own need for self-preservation.

It is only man who, although basically an animal relying on instinct during the major crises of life, is in-

creasingly coming to use reason to modify or guide his intuitions at all levels. This can be seen in the way the scientist treats his hypotheses, and is particularly apparent in the moral codes of conduct man has formulated to control the excesses of instinct.

In the field of religion intuition merges into faith. Religion maintains that certain knowledge which has been revealed to man by a higher authority than man himself, is indubitably true. Reason cannot demonstrate the truth or otherwise of this knowledge, but under favourable conditions, such as those which arise during religious experience, the truth of this knowledge is made abundantly clear.

Intuition gives tantalising glimpses of what lies beyond experience. However erratic and unreliable it may seem to be it leads the way in all philosophical and scientific thinking. It is the spearhead of progress.

REASON VERSUS INTUITION

We have then two media through which we get knowledge, Reason and Intuition. Both are faulty and neither is comprehensive. If we rely exclusively on reason we miss something fundamental; if on intuition, we have no intellectual means of knowing whether or not the knowledge we get corresponds to facts.

Reason and common sense may protest against the use of intuition in any shape or form. Truth must not only correspond to facts but be shewn to do so. If we say that a certain proposition is true yet cannot say *why* it is true, we are making meaningless statements.

But intuitively we feel that certain propositions are

true even if we cannot explain why. This feeling is non-sensical, but so are the feelings aroused in us by instincts and we cannot ignore these primal urges just because they do not fit into our rational way of thinking. Instincts motivate us from birth to death.

Reason and common sense acknowledge the existence of these instincts and the profound influence they have on us, but by doing so they have to admit that what may be non-rational is none the less real.

However preposterous intuitive truths may seem to the pure rationalist we have to take them into account. Pascal was right when he said: The heart has its reasons of which the head knows nothing.

If we are to understand the Universe in its totality we have to make use of both reason and intuition. But which should we take as our guide if and when reason and intuition offer contradictory versions of truth? Philosophy and Theology have left us in considerable doubt on this point. Philosophy on the whole favours reason, while the truths of Theology are in the main intuitive. It is this doubt that gives rise to the conflict between science and religion.

As there is no agreement even among the great thinkers as to whether reason or intuition is the more reliable guide to truth, what weight we attach to the evidence from each becomes a matter of personal judgement; a judgement based not on the wisdom of the ages but on what we ourselves both think and feel. The necessity to make our own choice is inevitable under the circumstances and introduces a subjective element into our thinking. But this should not deter us. No philosophical

or theological system has ever been built up that is entirely free from the bias and personal opinions of the builder.

A PERSONAL GUIDE TO TRUTH

If then, I am not to be left in perpetual doubt, I have to make my own affirmation of how to deal with Reason and Intuition. From reason I accept all well established scientific truths as corresponding to permanent facts. These truths may in theory be only probabilities but to me they are certainties. I am absolutely convinced that the sun will rise in the morning and that if I defy the law of gravitation by stepping off a high building the consequences to me will be disastrous. The laws of Nature may not be permanent laws, they may be changing even now, but even if they are, the change is so slight over vast periods of time that the consequences to me are negligible. As far as I am concerned the laws of Nature are certainties.

I also accept as valid beyond dispute the truths of logic. No proposition can be true if it carries a contradiction within itself. A thing cannot be and not be.

From Intuition I instinctively know that I have a "right" to live and fulfil myself, and that I am justified in seeking the means to this end.

From the same source I intuitively know, beyond any shadow of doubt, that I have obligations. I must not seek my own well-being at the expense of others. On the contrary, when Intuition, in the form of conscience, demands it my well-being has to be subordinated to that of others.

My right to live and fulfil myself, and my obligations to others, are the only two items of knowledge I get from Intuition which I unreservedly accept without question. They are my fundamental beliefs, my intuitive certainties. Why I hold these views I do not know. In fact I cannot find any reasons why I should exist at all.

Intuitive knowledge needs careful scrutiny, especially when our emotions are involved. Once we admit that there is "something in" intuitive knowledge we leave ourselves open to belief in any traditional or mythical nonsense. If we passionately want to believe that something or other is true we usually do so, even when there is rational evidence to the contrary.

Intuitive knowledge, if we are to accept it as true knowledge, has (paradoxically) to be "reasonable". Although the intellect can neither verify nor falsify it, we can accept it as true knowledge if it fits in with our scientific and philosophical inquiries. As science and philosophy have by no means finished their inquiries we have, if we are to get an overall picture of the Universe, to use intuitive knowledge to supplement that from sensation and reason. It is the only way we have of filling in the gaps.

In our search for the truth the whole truth and nothing but the truth the philosophers and theologians have left us in a sorry mess. They have answered none of our questions. All they have managed to do is point out the difficulties in the way of ever understanding what Reality is. One philosopher sets up a metaphysical system and the next gleefully proceeds to knock it down again. They cannot even tell us what supports a chair. At the rate

they are going they will be arguing until Doomsday without ever giving us the certainty we need.

To be fair we ought to point out that philosophy and theology have, to some extent, cleared the ground for us. Their success has been in laying ghosts; in proving by logical and other means that certain theories about the meaning of the Universe are false. Their findings are useful but negative. Although they cannot say with any assurance what *is*, they can and very often do prove to us what is not. If this process of elimination is continued we shall, presumably, be eventually left with the right answers.

But when? Philosophers and theologians have been trying to explain the Universe for the last 2-3,000 years and look like taking another 2-3,000 before arriving at anything definite and I, at least, want my certainty now, not in the remote future. Life is too short for me to wade through the intellectual morass that philosophy and theology has bequeathed to us and study it in detail. The best I can do is to skim it over and pick out those salient points which seem to me to be the most significant. This is an arbitrary way of dealing with the learning of the ages but there seems to be no other.

I can of course achieve my certainty by committing myself to some religious doctrine. But which? If I do decide on this course I still have to judge for myself which doctrine corresponds to facts.

Whatever conclusions I arrive at, have of necessity, to be based on my own life and experiences. This means that my certainties are personal ones. But who can honestly say that what he holds to be indubitably true

is universally or objectively true? All certainties are, to some extent, acts of faith.

But even a personal certainty is better than no certainty at all. One cannot live in perpetual doubt. One has to take something for granted.

My certainties, although personal, are to me, objective certainties. I hold them to be indubitably true in all times and places and under all circumstances. They may be different from yours but who is to judge between us? No one is infallible. No one as yet has solved the Riddle of the Universe.

Whilst knowing my own limitations and in spite of what philosophy and theology have to say, I seek my own certainties. With the aid of Reason and a little Intuition I think it can be done.

CHAPTER THREE

MIND AND MATTER

THE FIRST and most important question to which we have to find an answer is : Is the Universe a " fortuitous concourse of atoms " determined by " mechanical " laws, or is there mind and purpose behind it all? Once we find a satisfactory answer to this question we have found a major premise from which it should be possible to solve all, or nearly all, of our other problems.

THREE VIEWS

There are three lines of thought bearing on this subject which we ought to consider : a scientific, a metaphysical and a religious. Each gives a different answer.

Science sees the Universe as a mechanical structure. Every effect is the automatic result of a previous cause. Apart from some present doubt about the predictability of movements in the atom, science sees no evidence of purpose. Everything can, or ultimately will, be explained mechanically. The general view of science—although some scientists who have studied their findings philoso-

phically have their doubts—is that the Universe is determined.

A metaphysical view points to a different order of Reality. As we have seen, a philosopher, when trying to explain a material object such as a chair, strips from it the qualities which are manifest to us as phenomena and finds in the background an unknowable substance. As it is possible under this view to strip all phenomena from the Universe as a whole, we are left with a vast thing-in-itself, the nature of which we can never hope to understand. This thing-in-itself is a noumenon, conceivable, yet something of which we can have no direct experience. But we have to admit that it exists, otherwise on what are we to hang phenomena? As this thing-in-itself can never be more to us than an idea in the mind, whether both it and the familiar Universe are determined is a matter for conjecture.

Religion takes a different view. It maintains that the Universe was created by God. If this is true—and neither scientists nor metaphysicians can prove that it was not—it is impossible to see how the Universe could have been brought into being without both mind and purpose, a mind to design and control its development and purpose or will to carry it out. The religious belief in a supernatural order of things leaves no room for determinism.

The three points of view I have summarised leave us in more doubt than ever about the ultimate nature of the Universe. The metaphysical view leaves us in the air and the scientific and religious contradict each other. Again, it does seem that if we are to achieve the certainty we need we have to fall back on our own resources.

THE "FIRST" CAUSE ITSELF UNCAUSED

Perhaps the most intriguing question that is asked about the Universe is: Was it created or has it always existed? To this question no "rational" answer has been found. Delving into the possible alternatives does not give us even a clue. But it does shew up our limitations. Consider where this line of thought takes us.

We start with two propositions. One is that the Universe has always existed in some form or other, the other that it had a beginning.

Let us admit, here and now, that both these propositions are incomprehensible and always will be. They both involve the concept of eternity and the significance of eternity is something the mind cannot grasp. How is it possible for us to picture, let alone understand, how anything could exist that never started to exist and will presumably never cease to exist? And how, if we postulate a beginning, is it possible for us to conceive of what *was* before this beginning? Can we even think of a nothingness in which time and space were non-existent?

Yet in spite of the impossibility of our ever being able to understand how or why the Universe could either begin or not begin, *one of our propositions must be true*. The Universe either did have a beginning or it did not.

Which proposition is true will never be known if we seek evidence by speculating about that which cannot be known. To think in terms of infinity is futile. The only way in which we can get a clue is by leaving the non-verifiable severely alone and coming back into the world of sense perception and reason. We can understand

only within the limits of what our minds can grasp.

Take the first proposition that the Universe always was and always will be. Starting from this premise we see a world without meaning or purpose. Think of causation. We all know from our own observations, of the chain of cause and effect which runs through the Universe; a chain on which all the happenings and changes that are taking place in the Universe are, as it were, strung. This chain stretches both backwards and forwards into infinity. We cannot see the beginning of it nor the end of it. We can only see it as it passes by. Nowhere on this chain can we find a cause that in itself is not the effect of some antecedent cause. If we try to get back to origins by following this chain of cause and effect back through time we get nowhere. We can go on, on, and on, seeking the cause of some effect, but at no point shall we be able to say—This is it! This is the cause—itself uncaused—that gave the Universe its initial start.

Thinking in terms of infinity, moreover, has a tendency to make us think in cycles. Although it is just as logical to think of an infinite succession of causes as it is to think of an infinity of time, it seems impossible to believe that the number of causes at least can be infinite. This leads us to think of the chain of cause and effect not as a straight line from eternity to eternity but as a closed circle endlessly repeating itself. In the sphere of physics, for example, we are led to think of a nebulous cloud of gas condensing into stars and planets and the stars and planets then waning and dissolving back into nebula, the whole process being repeated indefinitely. If we think along these lines we get nowhere. Again we can see

nothing but a meaningless Universe.

It does seem then that owing to the limitations of our minds we have to accept the idea of a beginning. Somewhere we have to break in on this eternal or cyclic chain of cause and effect and say, Enough: This is where we begin! Just as we cannot think of anything outside space and time neither can we think of an existence that always was. Of mental necessity we have to postulate a "first" cause. This need of ours to think in terms of a beginning, of course, proves nothing. All we can say is that the idea of a "first" cause—itself uncaused—is less preposterous and fits better into our way of thinking than the idea of an endless succession of causes.

If we do accept the idea of a first cause we must never make the mistake of thinking that we can ever know what this first cause is. As our knowledge increases we travel still further back along the chain of effect to cause but whatever cause we discover will only be the effect of some cause as yet unknown. If we take the current theory that the Universe started with one big bang we still do not know what caused this biggest of all bangs. Our hypothetical first cause will always be beyond our reach.

FORCE

How the Universe came into being, it is, and always will be, impossible to know. We can rule out spontaneity. However difficult it is for us to conceive of nothing becoming something it is still more difficult to see how this could happen without volition. As far as our experience goes every effect has a cause and every cause to bring

about the change necessary to produce the effect must have an element of force in it. In the sphere of physics, for example, we know that before any change can take place either from rest to motion or from motion to rest, inertia has to be overcome.

Now we have ample evidence that there is force in the Universe, a force that is not only affecting all things, but is *in* all things. Science can break down all living and non-living matter into atoms and finally into atomic energy.

The scientists' atomic energy is not, of course, necessarily the basic stuff of which the Universe is made. Science may yet find means of analysing these particles of energy still further and find something still more tenuous. But however far down into this microscopic world it follows the chain of effect back to cause, it will never find the ultimate constituent of matter. The process of analysis by subdivision can be carried on to infinity.

Although we cannot know what the basic "world stuff" is, it is obvious, as a fact of experience, that energy in some form or other is active or potential in all matter. As far as science can say matter *is* energy.

This basic world stuff, which may be atomic energy or something which science has still to find, is force. In non-living matter this force is passive, in living-matter it is active. But whether active or passive it is still the same force. There are no "inert" pieces of matter, either large or small. Force is everywhere.

It is unfortunate that in our mania for subdividing we have come to regard this single Universal force not as

one, but as three. In physics we find this force in heat, gravitation, the atom, in chemical reactions, and so on. There are what we classify as the "mechanical" forces of Nature which always seem to act in a uniform manner. They are predictable and seemingly act as they must.

In living things we find the life force, the inner urge of all organisms to grow and reproduce themselves.

Religion and Humanism add the third: Kant's categorical imperative, the compulsion inherent in the dilemma: I want to do this but I ought to do that.

But they are not three distinct forces emanating from three different sources. They overlap far more than many people would like to admit. The moral law for example is not a universal law like the law of gravitation. It is concerned solely with human relationships and as such is a manifestation of the life force.

The life force itself is subject to the mechanical forces of Nature. However much this animated matter we call life can control its own destiny while still animated, sooner or later, as we have seen, it has to revert to the mechanically controlled chemicals, atoms, etc., from which it sprang.

Science by subdivision reduces matter to energy. Now consider a reverse course which in all probability took place in the past. Particles of world stuff combining, or being combined, into different sorts of atoms, different atoms combining in different chemical elements and so on, until ultimately we have all the different forms of matter that make up the familiar Universe.

While this change from primitive "world stuff" to organised matter was taking place a "mutation"

occurred—possibly an unusual combination of different chemical elements—which gave us life. At some time in the past life “emerged” from non-living matter.

This evolutionary jump from non-living to living matter seems, on the face of it, to have left a tremendous gap between. But as I see it, the difference we see between inorganic and organic matter is one of degree not of kind. Both are manifestations of the one basic world stuff.

When an organism dies disintegration takes place. The living matter returns to non-living matter, the non-living matter dissolves into chemicals and finally into the world stuff from which it originated. During this process nothing is lost. Energy is conserved and made available for other manifestations of the world stuff. In the poetic and symbolic language of religion all things come from God and all things return to God. Dust to Dust.

The blind mechanical forces of Nature are dominant. With the possible exception of a brief spell during the life of the individual they never lose control of the life force and with it of moral compulsion. In the end they always prevail.

Many people will deny that moral urges have any connection with atomic energy or any other force that may be found to be the basis of matter. The categorical imperative was implanted in us by an outside agency not subject to the mechanical laws of Nature, but who, in fact, made these laws. But if we as individuals are determined by these mechanical laws what grounds have we for saying that the relationships between us are not?

It does seem that our fate is determined not by adhesion to some moral code or by striving for biological betterment but by a blind Universal force which is unconscious of, or indifferent to, human welfare.

REBELLION AGAINST DETERMINISM

When we examine the Universe in the cold light of Reason we are inevitably led to the conclusion that it is no more than a "fortuitous concourse of atoms" governed by mechanical laws; a Universe without will or purpose.

But the human mind rebels against this determinist view of the Universe. It protests against the thought that a given effect must always of necessity follow from a given cause. It feels, if irrationally, that somewhere there is freedom to disrupt this mechanical sequence.

Throughout recorded history the vast majority of men have always believed that there is a Mind controlling the visible Universe and as this mind is active it has purpose. This belief is intuitive and not based on facts deduced from observation and reason. Yet it has been so persistent throughout the ages that it makes us doubt whether a mechanical explanation of the Universe is, or ever can be, a complete one. If this belief in any way corresponds to facts, then the cold light of Reason has failed to illuminate an aspect of the Universe that is of vital importance.

It does seem that at this point one has to make an intuitive jump and answer Yes or No to the question. Is the Universe some blind natural phenomenon, or is it some way or other endowed with mind and purpose?

—and then try to justify one's belief afterwards. If the atheist and the believer in a benevolent Deity can achieve certainty without knowing all the relevant facts, why not I?

I personally am convinced, or perhaps believe would be the better word, that there is a Universal Mind which is immanent in all things. This Mind is not a non-spatial substance that stands apart from matter. There is the same intimate connection between them as there is between the human mind and the human brain. To me this Universal Mind and the Universal force we know as matter are essentially one.

This Universal Mind unlike human minds is not subject to decay. Like indestructible matter it is eternal—as far as we can know.

My belief in a Universal Mind is, of course, intuitive. But as I have said before an intuitive truth, if it is to be accepted as corresponding to facts, has to be “reasonable”. It has to fit in with the rest of our experiences and carry no contradiction within itself. It is up to me then to give rational reasons why I hold this belief—if I can.

THE WILL TO LIVE

All living things have purpose and this purpose is that which the individual organism desires most.

The roots of an oak tree are “attracted” downwards into the earth and the leaves upwards towards the sun. But this attraction is not the automatic mechanical attraction of a bar of iron towards a magnet. It is self-seeking desire on the part of the tree for nourishment.

This desire is not of course a conscious desire in the same way as my desire to write this essay is conscious. It is that instinctive desire to perpetuate life which we know as the Will to Live.

But, unconscious or not, this Will to Live is in no sense blind. All living things have to some extent the power to choose. They can and do reject that which is disadvantageous to them as we do when we "involuntarily" vomit something that has disagreed with us. They are only attracted to, or seek, that which to them is beneficial. A thirsty animal is never compulsorily "drawn" to an arid spot. It "seeks" water to satisfy its needs.

This purposeful Will to Live is the dominant factor in all living things. Without it this planet would be as lifeless as a recently deposited lump of lava.

EVIDENCE OF PURPOSE FROM EVOLUTION

The Will to Live is not only concerned with the life of the individual organism but has an evolutionary purpose.

Science tells us that man has evolved from some primitive form of life to what he is today. During these changes his structure has become more and more highly organized. He has changed from the simple to the complex. Whether we consider this increase in complexity is progress or not depends on our sense of values. If happiness is the sole criterion of value then it is doubtful if man is happier now than he was millenia ago. It is impossible to balance up the profit and loss account of evolution on the basis of happiness alone.

What man has gained is increased sensitivity. He is

now more capable of a fuller happiness than he was but at the same time he has become more prone to suffering. Yet I, and, I believe, the majority of men, intuitively feel that the change from the simple to the complex, from the insensitive to the sensitive, is progress. Do we not consider ourselves superior to the lower, less sensitive, animals?

Now as I see it the chain of cause and effect on which this evolutionary progress is strung is not circular. There is no evidence of any decrease in man's complexity. We know that evolution is a wasteful process; that whole species have evolved and then died out; that much life has to be destroyed to retain the balance of Nature, but in spite of these many setbacks it does seem that, *on the whole*, evolution is running a purposeful course.

It may be argued that an infinite number of genetic mutations acting over an infinite period of time could by chance produce anything, even conscious man. This may be true but *has* an infinite number of genetic mutations been acting over an infinite period of time? The evidence is against this supposition. Life, or what we know as life, is a late comer on this planet. Nothing organic could have existed on the earth during the white hot period when the planets were formed. Even if life originally did come from outer space it did not arrive here in its present diverse forms. There was no celestial Noah's Ark to bring in the animals two by two. More likely some germ was deposited here on a meteorite.

Evolution may have been at work for millions of years, but not from the beginning of time. When we think of the enormous changes evolution has brought about in the

limited time it has been at work we cannot help but feel that there is will and purpose behind it.

This evolutionary urge of all living things is not due to external pressure. Environment plays a part as all creatures have to adapt themselves to their environment, but the main driving force is the organism's own will, the will to live, grow, reproduce, and as we have seen from evolution, to become more highly organised.

EVIDENCE OF MIND FROM BEAUTY

Support for the belief in a Universal Mind comes to us from aesthetics. Take beauty for example.

Beauty is something we cannot analyse. Unlike the uniformities of Nature which we can generalise into natural laws, beauty obeys no known rules. Our own assessment of beauty is of necessity subjective, coloured as it is, to a great extent, by our own cultural background. For this reason we have no fixed standard or yardstick by which we can judge whether a thing is beautiful or not. The Reality of beauty, i.e., beauty as a thing-in-itself, is indescribable. We cannot have any factual knowledge of the thing-in-itself. All our awareness of it comes from the effects it has on us. It is these effects, the feelings aroused in us when in the presence of the thing-in-itself that we can, or should be able to, describe.

If when viewing a work of art we understand the message it conveys we get a feeling of intense inner satisfaction. This feeling is not necessarily one of pleasure. If, for example, we see on the stage a tragedy that expresses some profound truth we recognise the beauty in it. Beauty

may sadden as well as please. Neither is this feeling altogether one of intellectual satisfaction. Our reaction to the thing-in-itself is, in the main, emotional. These emotional stirrings are a compound of wonder, awe, a realisation of something greater than self, and, if we are deeply moved, a feeling of reverence.

Although we cannot know what beauty is, (apart from its effects) we ought to ask ourselves: What is the origin of this thing-in-itself? Where does it come from?

This brings us to the age old question: Is beauty objective or subjective? Is this elusive thing-in-itself intrinsically a part of those objects we regard as beautiful or is it just something we conjure up in our own minds?

When we contemplate a work of art, say a picture by some great artist, certain feelings are aroused in us. If these feelings are of a particular nature we say that the picture is beautiful. If we did not have these feelings, beauty—at least for us—would not exist. Some people realise this subjective element in the appreciation of beauty but still maintain that the beauty seen is inherent in the object viewed. Others will point out that without the mind of the viewer the question of beauty does not arise. To resolve this dilemma common sense might suggest that the beauty is in neither the viewed nor the viewer but is an interaction between the two.

Now to me none of these views is correct. The thing-in-itself is not in us. We know only of its effects. Neither is it in the object viewed. It lies surely in the mind of the artist where it has its seat and origin!

Works of art are not beautiful in their own right. They are the medium through which the beauty is passed from

one mind to another. They are, at best, only means of communication and have no more aesthetic value in themselves than a telephone wire. What *is* of importance; what *is* the essence of beauty, is the quality of that which is transmitted at one end of the line of communication and its reception at the other. Works of art have merit only in so far as they pass this message clearly.

Beauty is not a quality of material objects in the same way as this paper partakes of the quality of whiteness. We cannot therefore identify it by enumerating its peculiarities and its relationships to other phenomena as we can with pieces of matter. The essence or reality of beauty is unknowable by the human mind.

Yet, paradoxically, beauty is one of the many manifestations of mind. It is conceived in the mind of the artist and apprehended by the mind of the viewer. Beauty is present only when the minds of the viewers are in sympathetic touch with the mind of the artist. Beauty *is* harmony, not necessarily a harmony of colour, sound, or form, but a harmonious relationship between two or more minds.

It will be said, of course, that we see beauty in Nature, a beauty in which no artist is involved. This is true but does not invalidate my argument if Nature herself turns out to be a work of art; a work of art being, according to my theory, a line of communication between one mind and others. In the case of natural beauty there is of course no human artist at the transmitting end of the line and it does seem that the only way in which we can account for natural beauty is by postulating a Universal Artist.

The human artist does not create beauty out of nothing. In effect he discovers it. With his deeper insight into the nature of things he sees beauty in the Universe where lesser mortals do not. He may find it in any of the ways in which it is manifest; in Nature, in human relationships, or even in ideas. It is the beauty which is already present which he reveals to us. If it needs a great (human) mind to provide us with a copy of the beauty that is—and assuredly it does—it needs one still greater to provide the original.

THE PARTS AND THE WHOLE

Consider two objects of which we know at least something—a motor car and a man.

A car is a man-made article. The raw materials out of which it is constructed are the natural products of the Earth; iron ore, timber, rubber, etc., etc. These raw materials are worked up into the “parts” of the car; chassis, wheels, nuts and bolts, etc., etc. These parts are then assembled in such a way that the result is a complete motor car ready for the road.

Now this result has not been brought about by chance. Blast furnaces, conveyor belts, spanners, etc., etc. do not work to a plan without guidance. We know of course that all along the line of production from raw materials to finished product this guidance has been provided by intelligent minds. In the case of a motor car, by human minds.

Now take the case of a man who is not the product of human ingenuity. Even if we regard him as no more than a mechanism he is still a far more complicated machine

than any motor car. The raw material out of which he is made are living cells which themselves are highly complex organisms. These cells have within themselves the power to grow and multiply. Then, apparently of their own free will, they combine in many different ways to become many different "parts" of the human body. Some go to make the heart, others the skeleton, yet others the hair, and so on.

Now this combining is not a haphazard process. Every cell has an inner urge to become what it was intended it should become and, barring accidents, it does so. If this were otherwise and these combinations of living cells were the result of chance, a collection of living cells would be just as likely to turn into the tail of a cat as the lungs of a human being. Even the best result of a chance combination of cells would be an organic freak.

While the "parts" of the body are still being built up the process of assembly is going on. Lungs, liver, legs, etc., seek, or are drawn into, their respective positions and again, barring accidents, they manage to get there. As a result of this building up and coming together we have, about twenty years after birth, a complete adult human being.

Now has the whole elaborate process of converting a bunch of living cells into a conscious human being been brought about by chance? Is it possible for us to believe that this miracle is due to the random movements of the bits and pieces of electricity which are supposed to be the ultimate constituent of matter? I think not. I personally, can see no justification for saying that although a human mind is necessary in the production of man-

made articles such as a motor car, a non-human mind is not necessary in the far more elaborate process that goes to make a man.

When the parts of both car and man are assembled in the proper order an important transformation takes place, both car and man become something more than the sum of their respective parts. The parts themselves may be complete and faultless but as separate units they are useless. It is only when these parts get together or are put together into harmonious relationships to each other that the chassis, engine, wheels, etc., will take us on the road, and the heart, lungs, liver, etc, will function as a man.

During this process of assembly nothing material is added yet the parts of both car and man change into something different in kind from what they were before. The assembled parts are functional units whereas the parts taken separately are not.

Does not the existence of these harmonious relations between parts which are a qualitative addition to the parts, indicate a mind and a purpose behind both car, and man?

DESIGN

The harmonious relationships between the parts which, together with the parts themselves, make up the whole is brought about by the fulfilment of a design. No unrelated parts can come together and make a greater whole unless there is a plan or an idea of the greater whole already present. Can we conceive of the parts of a car—even if they had the power to float about in

space—ever coming together in their proper order, with the carburettor adjusted and the last nut and bolt tightened, without some blueprint in the background; without the aid of a designer? Of course not! Nobody does. Not even the disbeliever in mind and purpose in the Universe. Yet this same disbeliever would ask us to believe that the making of a man is an automatic natural process that does not need a designer.

The idea that a car has to be designed and that a man does not arise from the fact that we know that the car was designed by a motor engineer, but that we cannot pinpoint with any degree of certainty who or what designed the engineer. But if a man was not designed and became what he is by chance, the making of man is a miracle so great that beside it the story of Jonah and the whale pales into insignificance.

Now consider the idea that all things have been designed. The car designed by the engineer, the engineer by A, A by B, B by C, and so on. This leads us back to the dilemma of beginnings. Who or what was the original first designer? This of course we cannot know. A first designer will always be as hypothetical as a first cause.

But impossible as it is for us to understand how design originated we have to admit that it is present in all living things. The eggs of a frog do not develop into birds. They become tadpoles, and the tadpoles become frogs. The eggs fulfil themselves. As Plato might put it, the eggs achieve the "form" of the frog; a form or design, that must have been present in the egg when it was laid.

We should not make the mistake of thinking of the designed and the designer as being separate entities. They seem to us to be separate in the case of a car, and a motor engineer, as the engineer is a human being "external" to the car. But can we say the same of the engineer and the designer of the engineer? It seems not.

The study of living organisms which, unlike a car, are not designed by human beings, suggests that design is inherent in the organism itself and not "impressed on formless matter" from outside. A biologist studying the life history of a frog sees no evidence that some outside agency has been at work controlling or guiding the frog's development. What he does see is life's "potential". He sees the adult frog potential in the tadpole, the tadpole potential in the egg, the egg potential in the parent frog and so on, *ad infinitum*. If we follow this sequence of potentials we find the frog potential in some primitive form of life, in inanimate matter, and finally in the basic stuff of which the world is made.

The design of all things, even that of a car, must have been immanent in the Universe from the beginning.

If the design of all things was "worked out" before these things came into being they all must have come from the same source, a Universal Mind that must have been co-existent with formless matter. Which came first, the Universal Mind or formless matter, it is impossible to know. Religions of course disagree with this view. They maintain that the Universal Mind (which they call God) not only designed all things but also created formless matter. It must then be prior to formless matter.

But this is only surmise and brings us back to the

dilemma of beginnings and the naïve question: "If the Universal Mind created matter, who or what, created the Universal Mind?" Owing to the limitations of our minds there is no answer to this question. All we can say with any certainty is that a Universal Mind existed when matter was formless.

Religions also maintain that design was impressed on formless matter by a Universal Mind which belongs to a different order of reality to that of the familiar Universe. If this is true then design is "external", i.e. imposed on matter from without. This is in flat contradiction to the view that design is internal, i.e. immanent or potential in matter itself.

Now to me the scientific view that design is internal is the one which corresponds to facts, not because I believe that scientific methods of investigation are infallible, but because internal design points to a Unity which external design does not.

UNITY OF MIND AND MATTER

I have a "feeling" that the Universe is not many-sided but one integrated whole; that when we divide it into physical, mental, moral, aesthetic, natural, supernatural or any other kind of spheres and treat these spheres as different "orders of reality", we get an incomplete picture of the Universe in its totality. These so-called different orders of reality are only "parts" of the Universe and the Universe itself is something more than the sum of these parts. It is the parts plus the relationships between the parts. We can never know how a car will behave on the road by studying its parts in

detail however exhaustive this study may be. To achieve this end we have to study a car *as a car*.

This feeling was originally intuitive and prior to the consideration of facts rationally arrived at. Yet I think my "belief" in the oneness of things can be justified by Reason.

In a man we have energy or force which has become matter, and mind which has become consciousness. Both are observable. We know—also from observation—that there is an intimate connection between the mind and the matter which constitutes the brain. What this connection is of course we do not know. But we do know that injury to the brain adversely affects consciousness.

In an unborn child the growing brain matter is present but not consciousness. But as consciousness "emerges" later it must have been potential in this embryonic brain matter at all stages of its development.

We also know that the brain matter of an unborn child is made up of the same basic elements as non-living matter and from this it is impossible not to draw the conclusion that mind is potential in *all* matter both living and non-living.

We should not however make the mistake of thinking of mind as being "passive" in all matter up to and including an unborn child and "active" only in conscious beings like ourselves. Mind must be active before the conscious stage is reached. Otherwise, how can we account for internal design, natural beauty, the whole being greater than the parts, or for the way the world stuff has organised itself, and is still organising itself?

It may be difficult to think of mind as being even

passive in an "inert" lump of rock but is this idea any more fantastic than the physicist's account of this same lump of rock vibrating as it were with atomic energy?

If matter is reducible to force, and mind is active in this force, how, or where, can we draw a line between them and say: This is physical and that is mental? It may be a useful fiction to put mind and matter into separate compartments but are we justified in doing so?

The scientific view that the design or form which all living organisms have an urge to complete is "internal", supports the belief in a Universal Unity. If we take the opposite view that design is externally imposed, we are of necessity postulating two world orders, one natural and one supernatural. By doing so we are putting the designed and the designer into different spheres and the evidence is against this supposition. It is wrong to say that God designed the frog, the engineer, the car, or anything else, if by God we mean something less or "other than" the Universe in its totality.

What binds the Universe into a coherent whole is the relationships between the parts. No part, whether this part be a material object, a living organism, a mental concept, or a moral principle, can stand isolated. They all exist by virtue of their relationships to one another and to the Universe as a whole. Matter is force organised; Life is matter organised to a higher level. And what becomes of a moral principle without Life?

We know there are many internal stresses in the Universe; struggles between contending forces, but these struggles themselves are only manifestations of a harmonious whole.

The earth in its journey round the Sun is urged by centrifugal force to fly off into space. This is counteracted by the gravitational pull of the Sun. The two forces neutralise each other and the earth is kept on its course. In spite of these divergent forces acting on the earth and the other planets, the solar system is a harmonious whole.

When some species of animal, such as rabbits, find favourable conditions, there is a rapid increase in numbers. This means an abundant supply of food for the rabbits' natural enemies who also increase in numbers. By this means the number of rabbits is kept in check. Even where conditions are such that the rabbits' natural enemies cannot multiply, the rabbits themselves are decimated by starvation or disease. In either case, the balance of Nature is restored.

We often think of a conflict between good and evil, but this conflict is imaginary, not real. Good and evil are necessary to each other. It is impossible to eradicate the one without eradicating the other. Good has no meaning except in relation to evil, and evil has no meaning except in relation to good. Good and evil shade into each other and are not distinct. Like hot and cold, black and white they are the opposite poles of the same thing. Good and evil are human concepts. They are our own assessments of what is, or is not, of value.

In spite of its many apparent diversities the Universe is one self-sufficient, self-renewing, entity. It is a Unity of Mind and the force we know as Matter. Without Mind, force is blind; without force, Mind is futile; without both acting as one, there is no Will or Purpose.

CHAPTER FOUR

THE SPIRIT OF THE UNIVERSE

THE IDEA of the Universe as a Unity of Mind and Matter raises the question of God and what we mean by God. If there is a God how does this God fit in to a mind—matter scheme of things?

The study of God can never be an exact science. Too much has to be based on inference. When we probe into the eternal mysteries, we try to keep at least one foot in the common sense world, but find ourselves having to rely more and more on intuition and pure speculation, and less and less on the empirical methods of science and common sense. This is inevitable from the nature of the subject matter. Outside religious dogmatism there are no "hard" facts about God. There is no scientific evidence that God even exists.

When we delve into the misty world of intuition and speculation, we run the risk of coming to conclusions which in the cold light of Reason are nonsensical. We are apt to let our imaginations and emotions run riot and set up some elaborate metaphysical system that

collapses like a pack of cards when confronted by some brute fact of experience. This is a risk we have to take.

When we venture beyond the realm of everyday common sense and make a jump ahead of facts established by observation and reason we leave ourselves wide open to attacks from the sceptic who is forever at one's elbow. He is the man who does not believe in all this metaphysical nonsense and who must have rational reasons before accepting any proposition as corresponding to fact. If we make any assertion based on intuition alone he will immediately say "prove it" and then we find ourselves unable to do so in rational terms. An intuitive truth is not based on facts empirically arrived at.

Although we may not agree with the sceptic that Reason is the only guide to truth, we have to admit that reason should be allowed to play its part. We have then to make a rule to reject any conclusion we arrive at through intuition and speculation if it outrages common sense.

MANY GODS

Primitive man always believed that there were unseen powers interfering in his affairs. As he was used to thinking in human terms he attributed to these powers, or gods, human virtues and vices. The gods could be angry or kind. They could see and hear all he said and did.

There were good gods, and bad gods. The good god ripened the harvest, and the bad one sent the plague. Primitive man was painfully aware that although some of the manifestations of the gods were of benefit to him many others were not.

To primitive man it must have been obvious that he needed to keep on the right side of these gods. To achieve this end and in the hope of securing better terms for himself he made sacrifices to them. It is very human to think that one cannot expect something for nothing.

Primitive man's belief in many gods was understandable. It must have been easier for him to think of good gods and bad gods rather than of one god who arbitrarily change from good to bad, or from bad to good.

ONE GOD

With the growth of civilisation and the advance in human thought, the belief in many gods was superseded over a great part of the globe by the belief in one God, a God in which resides *all* power. This supreme power is omnipotent, omniscient, and omnipresent. There is nothing this one God cannot do. It is immanent, i.e. "inside" the Universe and, at the same time and in some mysterious way not easy to explain, transcendental, i.e. "outside" the Universe. It is the creator of all things, the supreme law giver, and the final arbiter of man's fate.

Some theologians have their doubts of the omnipotence and point out that even the Almighty cannot add two and two together and make five and the Creator of all things cannot cause a thing to be and not be at one and the same time. Nevertheless the general view of this one God as a Being of unlimited power remains.

As man continues to think anthropomorphically he has humanised this Supreme power and refers to it by using the pronouns He and Him, pronouns which have human connotations (male at that). This one God has

become a Father figure with whom man believes, rightly or wrongly, that he has an intimate personal relationship; a relationship far closer than that between God and the rest of the animal kingdom. After all did not God create man in His own image?

This one God then must have human qualities and Man—at least potentially—God-like qualities. But we can hardly say of an omnipotent God that He has human failings. God must have human virtues, but not human vices. God is in fact not only omnipotent, omniscient, and omnipresent, but also the embodiment of all human ideals.

Human ideals, of course, change with time and place and with them man's conception of God. The ancient Hebrews believed that God is stern but just, the later Christians that God is all loving. But in spite of widely different opinions about the "nature" of God all believers have faith that God can do no wrong. God is in fact the perfect Being.

BENEVOLENT GOD

During the last 2,000 years or so Man's ideas about this one perfect God have undergone considerable change. From the stern if just God of the Hebrews whom men had good reason to fear, God has become kindness itself. He is now seen as the "Friend behind phenomena", a God who hates cruelty and injustice; a God of infinite compassion. As he is just, as well as kind, He will, sooner or later, compensate us for the sufferings we have to endure here and now. Perfection as an attribute of God has become synonymous with benevolence.

The belief that God is all loving is for believers not a

probability but a certainty; the certainty of faith. This faith gives untold consolation to the many millions of believers and when this faith is lost causes untold distress.

Belief in a benevolent Deity may or may not correspond to fact, but on humanitarian grounds alone there is a strong case for fostering this belief. To destroy a man's faith is to do him incalculable harm. This is particularly true if no alternative certainty can be offered him.

This faith, moreover, coupled as it is with hope of reward and fear of punishment, has on the whole had a remarkably good effect on human behaviour. It has not stopped wars or the animosity between man and man, but it has certainly softened this animosity.

This raises an acute moral problem which troubles the conscience of many well-meaning men. Has the Rationalist, however strong his case, any right to undermine a man's faith, however nonsensical this faith may seem in the light of reason? Or should Truth be allowed to prevail regardless of the consequences?

MAN MADE GOD

Here the sceptic at my elbow must have his say.

Tell the truth whatever the cost! It will no doubt upset many people to be aroused from their "dogmatic slumbers" but in the long run the human race as a whole will benefit from facing up to the truth. The dead hand of Religion has been a brake on man's progress long enough.

Tell the believers that this benevolent God of theirs bears no more relation to reality than the man in the

moon. If they want to see Him they need only look in their own mirrors.

When we say a thing is perfect we are passing a value judgement on it, a judgement based on our own experiences. If we say that God is benevolent we are judging Him not objectively but by standards we ourselves have set up.

Believers may protest against the idea that their God is what they make Him. They believe, many of them sincerely, that the perfection they attribute to God is not based on human judgement but on standards laid down by God himself. These standards so it is claimed were revealed to mankind by God himself and are recorded in certain sacred writings. These revelations are truths which cannot be apprehended by reason alone, and we should have faith that they correspond to facts.

But how can we distinguish between God's revelations and our own ideals without the use of human reason? We ourselves have to decide which is which and ultimately what is perfect and what is not.

Now reason rejects the idea that there is, or can be, any other standard of perfection than man's own. It will point out the inescapable fact that, although human standards change with time and place, the standard of perfection attributed to God is always the same as that of the particular believer. If God did not conform to the believer's standard He would not be the believer's God. God's perfection changes to correspond with the change in human ideals.

The individual believer may or may not have achieved the certainty of his faith through his own experiences. He

may have accepted his faith on the authority of his church, or of his community, or even taken traditional assumptions as being true. But however he arrives at his faith, whether through authority, intuition, religious experience, or by any other influence that has been brought to bear on him, this faith will always be found in the last analysis to be based on human judgement.

God is not an objective reality. He is the idealisation of man's own hopes, fears, and aspirations. When the believer worships God, he is not worshipping some other worldly Being but his own ideals. God did not create man in His own image. Rather, Reason would say, Man created God.

CONTRADICTION IN CURRENT MONOTHEISM

The idea of one omnipotent benevolent Being ruling the Universe causes endless theological difficulties that have never been overcome. If the one perfect God created all things in heaven and earth then Creation itself must be perfect. If we start from the premise that God is perfect it is impossible to escape this conclusion. The perfect workman does not turn out imperfect goods.

But no one, not even the believers in a benevolent God, regard Creation as perfect. In fact, most people whether believers or not, spend most of their time trying to remedy the "defects" in the work of this one perfect God.

To arrive at the conclusion that the Creator is perfect and that Creation is not, means that the Creator is being judged by a different standard of perfection from that applied to Creation. The believer may protest against

the idea of dual standards being used and maintain that there is only one objective standard by which to judge and that is the one laid down by God himself. But if God's standard is the only real standard and as God presumably works to this standard and not to one humanly devised, who are we to say that Creation is imperfect? Are we not putting our own assessment of what is perfect higher than that of God?

As theology will never admit that Creation is perfect and as it has abandoned its theory that *all* imperfections are due to man's sin, it has had to revert to primitive man's belief in more than one unseen power. To account for these imperfections, Theology has had to bring in the devil and all his works; to postulate an evil influence at work in the Universe which is acting contrary to what is the Will of God.

If this evil power does exist—and apparently it does otherwise there would be no imperfections in the Universe—then God himself is less than omnipotent. If God was the perfect all-powerful Being He is claimed to be, He would not tolerate the evil powers which mar His Creation. If God *is* omnipotent and, for reasons of his own, allows these imperfections to exist, then these “defects” in Creation are in no sense evil. They are there by the Will of God. They are part of the divine scheme of things and neither we, nor the theologians, have any right to condemn them.

Either both Creator and Creation are perfect or both are not. To think otherwise is to outrage common sense.

When we count up the blessings we receive, the belief in a “Friend behind phenomena” seems justified, but

this belief does not give us a complete picture of Reality. No amount of theological argument, however subtle and ingenious, can explain away the existence of evil in the Universe created by the one benevolent God.

Present day monotheism has much to commend it. It gives stability to society and the ethical code with which it is associated is acceptable to the vast majority of men, but it does not provide answers to the questions we are asking.

PURE SPIRIT

The confusion of thought that arises from the belief in one God raises again the whole question of what we mean by God. What have we in our minds when we think or speak of Him? Is this perfect Being a concrete reality, a ghost, or just a figment of the imagination?

The ordinary believer, if not the theologian, as he thinks in terms of time and space, has a vague idea of God as a spatial Being sitting in majesty somewhere "up there" dispensing justice and keeping a paternal eye on man's affairs.

But, the theologian might say, God has no corporeal existence and cannot be seen through a telescope. God is pure unadulterated spirit, freed from earthly dross. He is transcendental, yet at the same time immanent in all things.

But does the idea of transcendental spirit make sense? Can we speak or think of the spirit of God, if God himself is pure spirit? If we do, we are assuming that there is something beyond or "other than" pure spirit itself. If we follow this line of thought, we find ourselves for ever

seeking the spirit of the spirit, and then the spirit of the spirit of the spirit, and so on, which is about as mentally rewarding as seeking a first cause.

Immanent, yes! We all know what is meant by the human spirit the warlike spirit, the benevolent spirit, the spirit of the times and so on. But all these different spirits are spirits *of* something or other. They are not isolated from that of which they are the spirits. Spirit is meaningless except in its relationship to some concrete or abstract reality other than itself.

A PERSONAL CERTAINTY

Here, I ought to insert my own views about God.

God and the Universe are one and the same. As the Universe and all the events that take place in it are the only one and indivisible. Reality there can be, God is the force we know as matter, the Mind that is immanent in this force, and the Spirit or purpose which permeates the whole, like "an all pervading breath". Mind, Matter, and Spirit are not separate orders of Reality, but different aspects of a one all-embracing Unity.

It is only to avoid confusion and make ourselves understood that we give them different names. For this reason and although I believe that "God is all, and all is God", I usually limit the use of the word God to mean the dynamic Spirit of the Universe.

This belief of mine is one of my intuitive certainties which I am convinced has rational justification.

Here, our sceptic may butt in and say: What you mean by the Spirit of the Universe is not some abstract God but Nature. As Nature is the only form of "spirit"

that is observable and the only force we have to reckon with, why postulate a god at all?

But to me God means something more than what is usually meant by Nature. God is the "planner" that organises matter. He is the Will to live which sustains and gives meaning to life, which of course includes Nature. He is the "purpose" in growth and evolution. He is the Universal Artist who, when we are in harmony with Him, gives us beauty. He is the "internal" designer and the "potential" in all things. He is the "inner urge" of moral compulsion.

As the scope of my mind, like that of everyone else, is limited to what is finite, and as an aid to thinking I accept—without proof, of course—the convenient, working hypothesis that God is the first cause—itself uncaused; the prime mover—itself unmoved; the Creator—itself uncreated, as if it corresponded to fact.

To me there is no supernatural. To divide Reality into a natural and a supernatural order of things is to falsify it as a whole. God cannot be split into parts. All things and events, whether they appear to us as physical, mental, or moral, belong to the one indivisible "natural" order of Reality.

My body and brain are obviously parts of Nature and as my mind is inseparable from my brain, my mind, too, is natural. As my mind is a collection of ideas, all these ideas, even my ideas about God, belong to the natural order of things. My need for certainty, my emotions, my hopes and fears, my beliefs, my superstitions, my feelings of moral responsibility are all events in *me* and *I* belong to Nature.

I know that certain events in me are due to causes outside myself but I see no justification for the belief that any of these external causes have a supernatural origin. As we accumulate more and more knowledge about the Universe, we find less and less that can be attributed to the supposedly supernatural and more and more that is natural. Thunder and Lightning, for example, once thought to be manifestations of the gods, we know now to be due to natural causes.

We all recognise "spirits" in the Universe, such as the warlike spirit, the benevolent spirit, the team spirit and so on. These spirits are abstractions and cannot be seen through either telescope or microscope. Yet they are "real" to us as their effects are observable in time and space. But because they are not spatial, we do not regard these "spirits" as other worldly. And would it not be the height of absurdity to claim that the team spirit in, say, football, which turns eleven individual players into one efficient unit, is of supernatural origin?

These minor spirits are manifestations or fragments of the Universal Spirit which is at work in all things and as such they are "natural" phenomena.

Even what is known as a religious experience is a natural phenomenon. In religious experience one is made aware of something outside and superior to the self. It is an emotional rather than an intellectual awareness and has been experienced by mystics of all ages and climes. The mountaineer has this experience when he surveys the majesty of his surroundings, and it is not uncommon among sensitive people, who, even if they do not believe in any particular religion, have learned to

appreciate the wonders of Nature. Mystical experiences are many and varied, but they have one thing in common. In all of them the presence of some spirit or God is felt.

But, the believer in benevolent monotheism may object, the feelings of awe and reverence experienced by the mountaineer and the lover of Nature is not a *true* religious experience. These people are not in communion with God, but with Nature. But is not Nature an aspect or manifestation, not of one particular God, but of all gods?

If what is meant by a true religious experience, is a vision of the goodness of the one benevolent God, it gives only a partial picture of Reality. There *is* goodness in the Universe, but there is also evil, and in this type of religious experience the latter is ignored. From this it is impossible not to draw the conclusion that vision of goodness seen is supplied by the mystic himself. It is an emotional welling up of his own hopes and fears. These yearnings for the ideal as humanly conceived, are man's unconscious and natural reaction to the evils that surround him.

The immanent Spirit of the Universe is the only God that is not man made. As the natural order of things He (or It) is not to be judged by human standards. God is neither moral nor immoral, good nor bad, in any human sense of these terms. He is what He is. We have to take God at His own valuation.

Identifying God with the Universe and the purpose in it is the only form of monotheism that is realistic. Benevolent monotheism explains some of the facts of our experience but by no means all. To accept benevolent

monotheism as the only form of monotheism that corresponds to fact is to deliberately blind oneself to the harsh facts of Reality.

The pantheistic belief, that God is the immanent Spirit of the Universe and that all things and events belong to the natural order of things, is free from the contradiction in benevolent monotheism that the Creator is perfect and that Creation is not. It puts good and evil in proper perspective and shews them for what they are, the satisfactions and frustrations of human needs and desires.

The belief that "God is all and all is God" is not a comforting doctrine like the belief in one benevolent God. It offers no Father-figure to be worshipped. It sees both friend and enemy behind, or rather, in phenomena. It makes no facile promise that better things will be brought about by the intervention of some other worldly agent. It takes the realistic view that all things and events, whether they appear to us to be good or evil, are all "parts" of the one indivisible Reality.

Yet this belief in the oneness of all things should not lead us into fatalism; into the belief that whatever happens, however disastrous it may be to us, is either determined by the natural order of things or brought about by the will of Deity, and that there is nothing we can do about it. It is only the minority in whom the life force is at a low ebb who will take this pessimistic life-negating view.

The Will to live and perpetuate the species is too strong in the majority to allow the bulk of mankind to sink into this slough of despond. The vital life force is not to be

gainsaid. It is forever surging onward to fresh evolutionary pastures and will brook no opposition. Life knows instinctively that the obstacles in the way of its fulfilment are to be overcome, not passively borne.

The Will to live and perpetuate the species is a "part" of the Spirit of the Universe and as such we should follow it wherever it may lead. Other parts of this same Universal Spirit may act, or seemingly act, to frustrate this Will to live. Why this should be we do not know. But what we do know is that without the struggle between species, and between species and the rest of Nature, there would be no life. And is not life of value both to us and to the Spirit of the Universe?

CHAPTER FIVE

FREE WILL

WHAT I have written so far is the truth *as I see it*. My conclusions are based on my own experiences, my reason and my intuition—aided, of course, by consideration of the conclusions arrived at by others.

But our sceptic may say, “Your findings are not the result of your own free independent inquiries. They are determined for you by what your inherited characteristics and environment have made you. They are due to factors over which you have no control and have no ‘objective validity’.”

To what extent the sceptic’s assertion is true seems to be in considerable doubt and it is useless to continue the search for truth with this doubt hanging over us.

The problem of freewill is apparently insoluble and it does seem that it always will be—at least, intellectually. We have then to choose (whether our choice is determined or not) between two conflicting beliefs: One that we are free and the other that we are not. It is obvious that one

of these beliefs is true and unless we are to abandon hope of ever understanding the meaning of the Universe, we have to decide—even at the risk of being wrong—which belief corresponds to fact. Sitting on the fence will get us nowhere.

THE CASE FOR DETERMINISM

One school of thought would have it that Man is incapable of forming independent judgements. All his actions, thoughts, and ideas, arise from his physical and mental structure, and his physical and mental structure is determined by the characteristics he has inherited, and by his environment. The shape of his nose, any intellectual, religious or intuitive conclusions he comes to, and even his moral character, are determined by these two factors.

The case for determinism has good rational evidence to support it, evidence which, as far as one can see, no scientific discovery could falsify. Most, if not all scientific evidence such as that obtained from the study of animal behaviour and how we ourselves automatically react to certain stimuli, supports the case for Determinism. It is doubtful if even psychology as it probes deeper into the human mind will ever find any other cause for our being what we are than heredity and environment. If circumstances beyond our control have made us what we are, how in the name of common sense can we be any other than determined?

NO EVIDENCE OF FREEWILL FROM RELIGION

Although the “proof” that we have freewill may be

“beyond” the realm of science and reason, the “revealed” truths of religion are of little or no help. For example, the Christian case for freewill is too full of contradictions to be accepted as it stands. What is true must be logical.

Christianity maintains that freewill is a gift from an omniscient God. This statement, if we start from the premise that God created all things in Heaven and Earth, must be true.

But in what sense can a “granted” Will be free? If an omniscient God gave us the power to chose, He must know how we are going to use it. If not, how can He be omniscient? We are making contradictory statements if we say that God is all-knowing, yet cannot know what the consequences of His own action are going to be. If we believe in an omniscient God, we have to admit that how we are going to use our freewill (if we can call it such) was already known before we received it.

Christian theology further bedevils (or used to) the case for freewill by bringing in the concepts of Heaven and Hell. If Christianity is right in its beliefs, then God says to us in effect: “I give you freewill. If you use this freedom in ways of which I approve, I will grant you a life of eternal bliss; if you use it otherwise, you will suffer the torments of eternal damnation.” If the Will is influenced (and influenced it must be for the believer by the prospect of infinite reward or infinite punishment when making a choice) how can it be free?

Christianity does not provide any evidence for freewill; on the contrary, its beliefs are a strong argument in favour of Determinism.

A PERSONAL VIEW

My own view is that man has a limited amount of freewill. It may be only the freedom of a caged bird; the freedom to hop from perch to perch, but at least it is not determined to the same extent as what happens to an apple when it falls from a tree.

This belief of mine springs from my conviction that the Universe is conscious energy. It is inconceivable that the Spirit of the Universe itself can be any other than free. If it is *all* things it must be self controlled. There is nothing else to control it. If, then, an individual is physically and mentally a part of the Universal All, he must enjoy at least some of the powers of his parent body. He is free at least potentially as he is a fragment of that which cannot be determined.

But this freedom is by no means absolute. When an individual is born, or perhaps when he is conceived, a fragment of the Universal All detaches itself (or is detached) and for a brief spell leads a (more or less) autonomous life. At death it loses its individuality and is reclaimed by the parent body. It has no say in these events. It is pitchforked into the world without being consulted and, however much it tries, it cannot escape its ultimate fate. Birth and death then are determined for us. There is nothing we can do about either.

It is only during our brief life spans that we have, or seem to have, any freedom of choice. But even during this short period what freedom we have is strictly limited.

Man's make-up cannot be clearly divided into the two elements of mind and matter. He is a complex of both.

But when considering the question of freedom it is as well to distinguish between the two.

Physically man is not free. His body is subject to the same mechanical laws of Nature as inorganic matter. Even his physical reactions to events in his mind are determined by these mental events. (Worry, for example, can cause stomach upsets.) Mind and matter are too much as one for this to be otherwise.

It is only in the mind part or aspect of the mind-matter complex that we get any evidence of freewill. But this evidence, if it can be called such, is not *positive* evidence. Freewill cannot be demonstrated. We just feel or intuitively "know" that we are free.

As we must either have freewill or be determined, and as we can supply no rational evidence of freewill to set against the weighty arguments for determinism, the case for freewill has to rely almost entirely on showing up the inadequacy of Determinism.

DETERMINISM NOT THE FINAL ANSWER

If all our actions were determined, life would have no meaning for us. All our strivings for physical betterment, increased mental capacity, and for the acquisition of what we call "values", would be vain and futile. These benefits would come to us (or not come to us) without any effort on our part, or in spite of anything we could do. Right and wrong would become meaningless terms and there would be no morality. It would be useless to try to get an "objective" view of anything. The only view we could possibly get would be one already determined by what antecedent causes have made

us. The answers to all our questions are already written out for us by our inherited characteristics and by our environment.

If we are not free, why do we have to worry about these things? Why do we not accept fate as it comes, and hope for the best? But worry we do. Something other than reason tells us that we are responsible for our actions, and we cannot be responsible for anything we do, unless we are free.

The extreme difficulty we very often encounter when we have to decide on some course of action indicates freewill. If all our actions were the necessary result of what has gone before decisions would come with the polished ease of certainty. There would be no alternatives to agonise over. The question: "Shall I do this, or shall I do that" would not arise. Even business dealings would present no problem if we were determined. Whether we make a profit or loss has already been decided.

It is only on the assumption that the mind is free that we can account for what is "new" in human experience. The mind is not *always* governed by internal and external influences. At times it rids itself of the drag of heredity and environment and moves on to create something original. By doing so it *adds* to the previous total of human experience. It is impossible to see how this could happen if all the thoughts and ideas brought into consciousness were the necessary result of antecedent causes.

It is impossible, for example, to see how Shakespeare's environment could have been responsible for his plays. These plays, giving us an insight into the nature of things

that has never been seen before, could not have been entirely the outcome of Shakespeare's own experiences of life. These plays transcend the environment in which they were written.

Nor is it possible to give the credit to Shakespeare's genetic structure. It is difficult to say the least—to see how a chance combination of genes could write sonnets. And can we say, without straining our credulity too much, that when some mutation occurred in, say, Shakespeare's grandparents, it became inevitable that we should see Hamlet on the stage?

But the chief weakness of Determinism lies in the fact that it cannot account for moral issues. Science, on which Determinism relies, has discovered many facts about the material, and even the psychological world, but it cannot evaluate what it has found. It can point out what is "good" as a means to an end, but not what the end-in-itself is, still less what this end-in-itself "ought" to be. Science can account for only a part of human experience.

Life cannot be fully understood if we rely on reason alone to explain it to us. We know as a fact of experience that we have to make moral decisions, and moral decisions are not based on reason but on "values", and values, i.e. "ultimate" values, are ends-in-themselves for which no reasons can be given.

These ends-in-themselves are not fixed principles which are "good" for all times and places. Life both genetically, and environmentally, is continually changing, and situations arise in which "new" moral decisions have to be made; decisions for which no precedent can be found. How then can we come to any decision, under circum-

stances of which we have had no experience, without the aid of freewill?

Heredity, and especially environment, may have given us certain principles, such as the Christian ethic, to guide us when making a moral decision, but these principles, even if we regard them as relevant at the time, are not the deciding factors in our day-to-day life. Love thy neighbour may be a principle "handed down", but it does not relieve us of the responsibility of having to decide whether or not to use the hydrogen bomb, here and now.

The feeling that we are responsible for our actions cannot be dismissed as of no account because we cannot find out, through science and reason, what causes it. In the world of common sense itself this feeling is just as real and as observable a phenomenon as any "natural" phenomenon. It is an objective fact of experience; objective, as we are not only aware of it in ourselves, but can also see it working in others.

THE PARADOX OF FREEDOM

From the strictly rational point of view the case for freewill is full of contradictions. We are free yet not free. If we are free to make a decision (moral or otherwise) this freedom must have been thrust upon us. How could we have voluntarily accepted the gift of freewill unless we were already free to do so? If we were born free, then we acquired the power to choose freely before we were conscious of freedom or of anything else. In either case, freewill was determined for us. We had no say in the matter.

But the biggest obstacle to our understanding whether or not we are free lies in the paradoxical nature of freedom itself. Freedom is self-restricting. We cannot accumulate freedom as we can cash in the bank. The more free we become the more restricted we are. There cannot be a freedom without a corresponding curtailment of this freedom. Freedom can never be absolute.

If it were possible for me to have "unlimited" freedom, I should have the licence to do as I pleased, regardless of the consequences. But it is obvious that I cannot escape the consequences of what I do. I might, in theory, act irresponsibly without being called to account if I were alone in the Universe, or if I alone had unlimited freedom. But I am only one of many in the Universe who presumably also have freewill. I could not, therefore, restrict the freedom of others without running the risk of having my own restricted. My freedom, whether unlimited or not, is in opposition to the freedom of others.

True freedom, i.e., the greatest amount of freedom it is possible to get, can be attained only by acknowledging the right to freedom of others. Freedom and licence are incompatible. True freedom is, of necessity, a compromise; an accomodation of your desires to mine, and of mine to yours.

Freewill is not an unmixed blessing. This exercise of it causes too much mental and emotional strain and has, at times, had appalling results. It is doubtful if we get any benefit from being free.

If we were determined, is it not possible that we should be "better off" i.e., happier than we are now? If we

were not under the necessity of deciding for ourselves should we not have the calm serene detachment that we see (and perhaps envy) in those who unquestioningly accept Authority?

Yet we "value" freedom not because of any benefits we get from it (or think we get from it) but as a desirable end-in-itself for which no reasons can be given.

We know we have freewill, not so much because reason tells us so, but because the Life we know through *all* our experiences is inexplicable without it. But this freedom is very limited (which is perhaps as well). Let us be content with the little freedom that has been "determined" for us.

CHAPTER SIX

EVOLUTION

GRANTED THAT we are free to make independent inquiries into the nature of things; that the results of our inquiries are not foregone; that neither benevolent Monotheism nor Determinism gives us satisfactory answers to our questions, what line of inquiry is most likely to lead us to Truth? The answer, to me, is in the study of Evolution which, as I see it, is the "history" of the Universe.

If we start from the premise that God is all and all is God, everything we experience is a manifestation of God. These experiences may be physical, mental, aesthetic, or "spiritual". They may include suffering in an earthquake, awareness of the truth of mathematics, appreciation of beauty or a feeling that there is "goodness" in a kindly action. But whatever they are, they all emanate from the same source.

If we deny the possibility of knowing God by "direct" means these manifestations are the only source of knowledge of God that is available to us. It is from these

“effects” and these effects alone that we have to infer the nature of the cause.

But it is not enough to know the present state of the Universe, however exhaustive this knowledge may become. What seems to me to be of far more significance is not what the Universe is now, but what it is “becoming”.

The Universe is not, and as far as we can know never has been, static. It is slowly, almost imperceptibly, changing, not in the quantity of the substance of which it is composed, but in the quality of this substance. These qualitative changes are brought about by the purposeful organising of simple units into more complex ones. Particles of “world stuff” being organised into atoms, atoms into matter, matter into life and so on.

This process of change from the simple to the complex is Evolution. Evolution is at work in *all* things, in matter, life, and moral ideas, and we should not restrict the use of the word to Darwinian biological changes only. There is far more to Evolution than the findings of the missing link. The whole Universe in all its aspects is in a state of flux. The only thing that is constant in the Universe is the evolutionary process itself.

Where these evolutionary changes will eventually take us is impossible to know. There is no foreseeable end to evolution and the changes it may bring about. We cannot foresee the end of history and if we cannot know of any “end product” to evolution we cannot know what is the ultimate purpose of God. For all we know the Spirit of the Universe is leading us down a blind alley to extinction, as it did the dinosaurs.

And are we justified in thinking there *is* a final goal to evolution or what to me is the same thing that God *has* an ultimate purpose? It seems not.

THE FALLACY OF PERFECTION

Everywhere we look we see strife, the struggle to overcome obstacles that stand in the way of desire. This insatiable urge to seek some end for itself is dominant in all things. It is a manifestation of the evolutionary dynamic Spirit of the Universe. It is Will; and Will is desire seeking satisfaction.

But this Will is chaotic. Everywhere it seems to be in opposition to itself; contending forces acting on the earth, the one trying to pull it off course, the other to keep it where it is; the leaves of the oak tree struggling against gravitation towards the Sun; Will in the instinct of self-preservation seeking opposing ends to those sought by Will in the social instinct.

If the Will of God is the one Universal Will we should expect it to be consistent and not to be continually frustrating itself. We should expect it to have one goal and not many seemingly irreconcilable ones. To our tidy methodical minds the tensions between the parts of the Universe are irrational. Why, in the creation of the one God should there be these tensions? Surely the almighty Spirit of the Universe could achieve its ends without all this strife and wasted effort?

But we are not dealing with a trading organisation in need of an efficiency expert but with the timeless "natural order of things". We have to take the Universe as we find it.

What we do know is that without these tensions or unsatisfied desires life as we know it could not exist, let alone improve itself by becoming still more highly organised. If the forces of gravitation had no "desire" to act as they do—even if this desire is only a blind urge—the Universe would fly off into chaos. If the fox ceased to desire the rabbit it would die of starvation. If the rabbit ceased to desire its life and freedom, it would never try to escape from the jaws of the fox.

And what of the psychological tensions within ourselves? Are these not unsatisfied desires? Are they not Will in us seeking some end—an end that in the last analysis is always found to be intuitive and irrational?

Life would be meaningless without desire. Even if we could exist in a Universe without mechanical and physical tensions, what would become of our moral selves if we lost the desire to overcome evil or had no evil to overcome? Would there be any credit in being good without the tension between good and evil?

We are all striving for the perfect world of our ideals, but we all have to admit that we have a long, long way to go before achieving this end. We all want to see wars eliminated, diseases brought under control and the forces of Nature tamed. We all want to see a "just" world in which the sins of the fathers (syphilitic or otherwise) are *not* visited on the children.

All these things could, with advantage to the human race, be brought about, but do any of us, whether we believe in many gods, one God, or no God at all, want to live in a world without tensions, i.e., with no unsatisfied desires?

Can we by any stretch of the imagination picture a Universe in which perfect peace reigned supreme? I think not. In a world without desires to be satisfied, we should have no incentive to seek any physical, mental, or moral improvement in ourselves. There would be no further improvements to be desired. All our previous desires would have been satisfied and all our internal tensions removed.

But we should be living (if life were possible) in a world without hope; a world in which faith and charity were unnecessary and in which there could be no such thing as mortality.

Let us admit once and for all that there is no final goal for any of us. Nothing we can conceive of is, or can be, perfect. Whenever we attain to some high ideal we find our standards to be inadequate and we are inevitably drawn to seek some still higher ideal. Whatever goal we reach, fortunately for us, desire still persists. The only perfect peace is the Nirvana of death.

EVOLUTION AS AN END-IN-ITSELF

As a "first" or "last" cause are forever beyond our comprehension we can never know how evolution began or how it will end. We cannot know *why* God created the Universe as He did, any more than we can know *what* He finally intends it to be—even if He has a final purpose.

In spite of this lack of understanding on our part it is obvious that as a necessity of survival we have to keep in harmony with the Spirit of the Universe, i.e., obey the Will of God. We know from painful experience that we

cannot defy the physical or even the moral laws of the Universe with impunity.

But it may be asked how can we serve God if we cannot know His ultimate purpose? How can we keep in harmony with the Spirit of the Universe if we cannot know what it is driving at?

Fortunately we have an escape from this dilemma. We cannot know God's end-in-itself, but it is possible to know something of the "means" to this end. These means can be discovered by studying how evolution has worked up to the present.

From this, it should be possible to get some idea of the general "direction" the Spirit of the Universe intends evolution to take in the near, if not the remote future. We have to be satisfied with serving the "means". We cannot know the end.

These "means" can be found if we use all our sources of knowledge, observation and Reason and all levels of intuition down to instinct. These means should then become our values and as we cannot see beyond them, our ultimate values—our ends-in-themselves.

But we should never forget that *our* ends-in-themselves are only means to the Spirit of the Universe. They are only pointers to the next step up on the endless ladder of evolution. We do not know where we are going but paradoxically we have to concern ourselves with the means of getting there.

And is this not as it should be? When we realise the impossibility of ever reaching perfection; a perfection which in any case is illusory, is it not better to travel hopefully than to arrive?

THE PRESENT STAGE OF EVOLUTION

Now consider how evolution has worked up to the present.

All living things have differentiated into species, the difference between species being such that no individual of one species can mate with an individual of another species and produce fertile offspring. This means that in the foreseeable future this differentiation cannot be reversed. There is no going back to a common form of life. Species have come to stay.

Each species has, or takes it for granted that it has, an inalienable right to live and to do so it has to prey on other species. With the possible exception of the lowliest forms of life, such as bacteria, etc., every living thing has to use other living things as food. The herbivore lives on plant life, the carnivores on the herbivore and so on. Some species, which include ourselves, live on both plant and animal life. It is one of the inescapable laws of Nature that each species has to satisfy most, if not all, of its needs at the expense of other species.

The division of life into species and the necessary competition between them for the means to survive are two of the "hard" facts of life. No intuitive insight is needed to confirm these facts. They can be verified by science and even by common sense observation. They are plain for all to see.

We may think that the necessity for individuals of one species to have to slaughter individuals of another species in order to live is not an "ideal" way of preserving life. Better more "humane" methods might have been

adopted. But we can neither alter nor escape these facts. We have to live with them whether we want to or not.

If one believes that Nature is the only Reality, these hard facts are seen to be empirical facts about the natural order of things. If one believes in a Deity who created all things in heaven and earth one does (or should) accept these facts as irrevocable "acts of God".

NATURE'S IMMORTALITY

Every individual of every species acts on the assumption that it has a right to live and fulfil itself. Yet it knows consciously, or is instinctively aware, that sooner or later it has to die. But as it is not the Will of the Spirit of the Universe that life should become extinct every individual has a strong instinct implanted in it to reproduce itself before being overcome by death.

By reproduction the individual achieves immortality. It passes on a fragment of itself to live on in future generations. But the individual's physical and mental characteristics are not all that survive death. In the higher animals, especially in Man, the individual's personality or "soul" survives to the extent that it moulds the character of its offspring and to a lesser extent the offspring of other individuals.

As generation succeeds generation the individual's biological and spiritual characteristics that are passed on become less and less potent in any particular descendant as they become more and more widely diffused throughout the species. But they are never lost. They are reorganised to form individuals slightly different from their predecessors. This passing on of the individual's

biological and spiritual characteristics is the only form of immortality known to the natural order of things. The individual as such does not survive death. He is dissolved back into his species.

To the Spirit of the Universe life is cheap. It has so willed that life should proliferate to such an extent that much of this life has to be destroyed to retain the "balance of Nature". Individuals are of little or no account in the natural order of things. They are in effect experiments in evolution. When they have served their purpose they are cast aside and replaced by other slightly different units. The mortal individual is sacrificed to its immortal species.

This brings me to another of my certainties, one which I am convinced is reasonable. To the Spirit of the Universe, species are something more, something infinitely greater than the sum of their living parts. Species are the result of generation on generation of evolutionary divergence. But the Spirit of the Universe has not finished them yet. As at present constituted, the species are only prototypes of what they will be in the future. The evolutionary work of God still goes on regardless of the fate of any individual.

We should think of the species as a continually flow-stream of life. The individual rises to the surface for a brief spell, adds its quota to evolution and then sinks back into the stream and is carried on as a biological and spiritual influence on future generations. Individuals come and go, but the species remains.

When we consider what a minute part the individual plays in the life of the species what grounds have we for

saying that this fragment of a greater whole is the be-all and end-all of existence?

The individual is only a means to an end. To nature the end-in-itself is the species.

THE SURVIVAL OF THE FITTEST

The chief cause of the evolutionary changes that are taking place is the operation of Nature's law of the survival of the fittest. Under this law the fittest are those individuals and species best fitted to cope with their environment, yet adaptable enough to meet the needs of a changing environment.

Adaptability to change has, in the long run, greater survival value than the individual's ability to deal with its own environment. The dinosaurs no doubt lived full satisfying lives when conditions suited them, but as they could not adapt themselves to a changing environment they died out.

The fittest are not necessarily the physically strongest or the most resistant to disease. Intelligence can outwit brute strength and circumvent many of the hazards of life.

All organic things whether individuals, species, moral principles or human institutions come under this law. The individual has to keep fit to prevent being overwhelmed in the struggle for life; species have to fight among themselves for supremacy; a moral principle loses Man's allegiance if it does not adapt itself to man's changing needs and a political party, if it is to rule, has to become strong enough to oust its weaker rivals.

Even mechanical things are not exempt from this law.

When a heavy body comes into collision with a light one, the weaker has to give way.

A law which favours the fit at the expense of the unfit is to our "humane" way of thinking repugnant. But if we take a wider view we have to admit that the operation of this law over a long period of time has had remarkably "good" results.

Under the law of the survival of the fittest, the weak individual is eliminated. As this usually happens before the individual concerned is capable of reproducing itself weaknesses have a tendency to die out. On the other hand, the fittest individuals are encouraged to live and reproduce themselves and by doing so they strengthen the species. In both cases it is the species which benefits.

Now has not this drastic picking over and discarding of the unfit been the means of lifting us from primitive blobs of protoplasm to the conscious beings we are today? And is this not progress? Are we not an "improvement" on say an amoeba? And are we not grateful for this transformation? We may not approve of the means taken to secure this desirable end, but we certainly find value in the end itself.

We ought to accept Nature's law of the survival of the fittest as having a universal value even though we as individuals do at times suffer under it. After all we are now benefiting from the way this law has operated in the past and we should recognise that our present discomforts are the unavoidable consequences of creative evolution working for the future.

The law of survival of the fittest is a necessary law. It is impossible to see how the Universe could function

without it. If any progress is to be made it is inevitable that the weak should succumb to the strong.

THE COMPETITION BETWEEN SPECIES

The necessity to fight for survival is not confined to individuals. Individuals have of course to struggle against the adverse forces of their environment which includes individuals of other species and at times individuals of their own species. But this is only part of a wider struggle. Species have to fight among themselves for supremacy not as collections of mortal individuals but as species.

As we have already seen, when an individual either through some favourable genetic mutation, or through some acquired skill, gets an advantage in the struggle for existence this advantage eventually becomes the property of the species. Now any advantage gained by any particular species is usually a disadvantage to other species. If the fox acquires extra skill in hunting the rabbit suffers. If the rabbit gains an extra turn of speed the fox goes hungry. Our invention of firearms and other weapons gave us an advantage over the wild life of the forest. They had to retreat and make way for homo sapiens.

The laws of Nature being what they are it is inevitable that a gain by one species should mean a loss to others. Nature does not "favour" the individuals of any species. It "uses" these individuals to promote species. Then, it would seem, it leaves species to fight it out among themselves for supremacy.

It is obvious that evolution has had a far greater effect on some species than on others. Some, such as insects,

seem to have got into an evolutionary rut and are making little or no progress. The higher animals such as mammals have become more complex and adaptable than the insects and although they have a wider range of activities than the insects they are still limited to what their instincts make possible for them.

It is Man who has made the most evolutionary progress. He has far outstripped any other form of life. This has been due, not to the acquisition of additional physical powers, but to those favourable mutations and environmental conditions that have given him a brain-power far exceeding that of any other species.

It is intelligence and intelligence alone that Man has to thank for his predominant position in the evolutionary scale. It has given him the cunning to out-manoeuvre his physically superior rivals. It has made him the species most adaptable to changing circumstances and above all given him an almost unlimited power over other creatures. It is in the acquisition of this power that Man has proved himself under Nature's laws to be the fittest species.

There is of course much more to be learned from the study of evolution than I have outlined above, but I have drawn so much attention to the emergence of species, the competition between them and Man's rise to dominance, is because these "hard" facts highlight those tensions in the Universe which concern us most. They represent, or seem to represent that discordant element in the universe which we have to account for if we are ever to understand the nature of the one Reality.

CHAPTER SEVEN

NATURE'S CATEGORICAL IMPERATIVE

MAN THEN has become the master species. He has now the power of life and death over all other creatures and exercises this power as and when he will.

Some he kills for food, others he robs of their protective covering to keep himself warm, others he enslaves to work for him, others he keeps to amuse him. The friendly and useful ones he treats with consideration. Those that menace him he destroys out of hand.

NO UNIVERSAL MORALITY

But is it right by any Universal moral standard that the human species should dominate and make use of other species to serve its own ends? If all species are made up of the same basic world stuff, subject to the same mechanical laws of Nature, to the same cycle of birth, reproduction, and death, and are all, presumably, God's creatures, should they not all be regarded as equals and have equal rights? Under the laws which govern the Universe it seems not.

Every species seems to have its own separate moral code, its own categorical imperative; an inner compulsion that is concerned not with life as a whole but with the wellbeing of its own particular species. The worker ant, urged on by blind instinct, slaves for its community and not for life in general; the lioness in a dim sort of way is aware of a duty to its species and teaches its young to hunt, an accomplishment which will benefit the young, but certainly not the species on which the young will prey.

We too, whether we realise it or not, are striving for the same end when we educate our children, rearrange our political alliances, or destroy disease germs. We do these things for the ultimate benefit of the human race even when they entail the destruction of other living things. We, like all other living creatures, are only indirectly concerned with species other than our own. When we have to make a moral judgement we always put *homo sapiens* first.

Every individual of every species acts (morally) in a different way to members of its own species from what it does to members of other species. Very few individuals of the human race, for example, even under the direst necessity, would contemplate killing a fellow human to provide a meal; but how many would consider the slaughtering of some innocent beast for the same purpose as being contrary to any moral, or even divine law?

The individual's bias in favour of its own species does not mean that all species have an instinctive urge to destroy other species or to act cruelly to them. Each species seeks its own advantage, but its own well-being very

often depends on the preservation, and even well-being of other species. Even the parasite has a vested interest in the survival of its host.

Our making use of other species to serve our own ends is not immoral by any universal standard for the simple reason that there is no moral law that is universally applicable. The question of justice in our relationship to other species does not arise. We instinctively know that our rights to live take precedence over the rights of other species; that we have a right to kill for food, and that our exercising of this right is sanctioned by natural law.

Intellectually we may have doubts about our right to kill but "existentially" nothing is more certain. Our reactions to the fundamental necessities of life are not governed by reason, or by any abstract notions of justice, but by the necessity of meeting the needs of life itself.

THE NECESSITY FOR CONTINUOUS STRUGGLE

The Spirit of the Universe has no sense of justice as we understand the term. What is right under natural law is the will of the fittest. But Nature's purpose, it would seem, is not to create a once and for all master species, but to perpetuate both species and the rivalry between them.

This view of life as essentially a war between species may seem to be outdated. It may have presented a true picture of conditions in the remote evolutionary past when we ourselves fled to the tree-tops to escape our enemies, but bears no relation to present day realities. But, as I see it, this war between species is by no means over.

At present we are the fittest species, but our dominance is not necessarily permanent. If we are to retain our pre-eminence we can never let up in our struggle for power over other species. They too are seeking powers over their environment and their environment includes us.

Man has little to fear from the larger animals. They are too easily identified, too few in number, and too easily controlled by modern firearms. But we have by no means fully mastered the lowlier forms of life, such as insects, bacteria, virus, etc. Our power over them seems to ebb and flow. For example, we recently gained an advantage over certain noxious insects by the use of D.D.T., but now we find that some at least of these noxious insects have adapted themselves in such a way that D.D.T. is no longer effective. These insects have produced resistant strains.

At present the virus of the common cold causes widespread irritation. No one seems to escape it. But what would happen to us if conditions changed in such a way that this virus became lethal?

We rely on science to protect us from these evils, but as these lowlier forms of life are continually gaining still more power over their environment it is only by forging ahead and making *new* scientific discoveries that we can hope to retain the mastery.

The fitness of any species to rule is relative to the fitness of other species. When one species makes a gain a more hostile environment is created for other species. To counteract this those species which have been put at a disadvantage have to seek further gains for themselves.

The continuous war between species is not just a

war for maintaining the status quo. It is "progressive" as it leads to species becoming more and more efficiently organised and more and more adaptable to changing circumstances, i.e. more and more fit. Species, and to a lesser extent individuals, gain by competing in this struggle.

To meet the needs of a competitive world all organisms have an instinctive urge to better themselves. The egg of the frog seeks to become a tadpole, the tadpole seeks to become an adult frog. But the adult frog is not content with having achieved the "form" of a frog. It forever seeks to become a "super" frog. It is this striving for betterment by the individual that leads to an improvement in the species.

We ourselves, whether we realise it or not, are bettering our species when we strive to give our children a better education than we had. We are making them fitter to cope with their environment than we were with ours.

An advantage gained by a species is brought about by the species adjusting itself to its circumstances. But we should not think of a gain as an acquisition from external sources. It was not given or revealed to the species. Rather it is a further realisation of the species' own potentialities.

All life is surging forward and all species are constantly bringing out the possibilities inherent in them. But we should be wrong to think of species ever taking on a final ideal form. If a single-celled organism, such as an amoeba, can develop into a multi-celled unit such as a human being, can we put any limit to life's potentiality?

The struggle between species for mastery has been

going on ever since life differentiated into species and as species, as far as we can know have become permanently established, this struggle will never end.

THE SELF-DENYING INSTINCT

Under Nature's laws it is every species for itself regardless of the consequences to other species. But under the same natural laws this free-for-all is not permissible to individuals. Nature's end-in-itself, we should remember, is the species, not the individual. Individuals are only pawns in Nature's plan for evolution.

To achieve its end Nature has developed in every individual not only an instinct of self preservation, but also a self-denying instinct to put its species before itself. These two instincts are complementary, the one to preserve the individual as a temporary member of the species, the other to further the interests of the species itself.

The individual's self-denying instinct very often leads to sacrifice (voluntary or otherwise) on the part of the individual. In some species even the act of reproduction causes death. But the individual's innate desire to preserve and improve its species does, in the majority of cases, overcome the individual's desire for personal benefit. If it did not, species could not evolve to higher things. They would deteriorate and gradually become extinct.

Self-denial on the part of the individual has led to a certain amount of co-operation between individuals of the same species. The bee co-operates with other bees in the construction of the hive; wolves hunt in packs to their mutual satisfaction, and where would our civilisation be without co-operation between ourselves as individuals?

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and of the necessity to protect and, in some cases, to teach its young, but has no conception of *why* it is being urged to do so. It acts on blind instinct and according to its nature and as it must. It is incapable of seeing beyond the immediate act to any purpose or end-in-itself.

Man is the only species that realises or is becoming to realise that there may be purpose in reproduction and evolution; that the endless cycle of birth, reproduction, and death is not an end-in-itself.

Reproduction he may regard as only the satisfying of "animal" instincts and a necessity for survival and biological self-fulfilment but the inner urge to further the cause of his species he is coming to see is directed to a higher more "spiritual" target than the satisfying of the individual's own needs and desires.

This vague awareness of some purpose that transcends the needs of the individual has taken on a mystical flavour and from it springs religion. Man, or at least the majority of men, have come to associate purpose in things with the will of some form of Deity. This unseen power may be a multiplicity of gods, the one benevolent God, the immanent Spirit of the Universe or just Nature. But whatever form this Deity takes Man has come to regard it as an objective reality, i.e., not one fashioned by himself.

Now all the great religions insist on obedience to this objective Deity, that to act rightly is to act in accordance with what is the will of their particular God.

Different religions have different ethical codes and serve different gods, but is it not a remarkable fact that

they all agree that what is Good, i.e., what is the will of Deity, is that which will ultimately benefit not so much the individual as the human species? Are they not all as one in putting mankind before man the individual? Do they not all regard the willingness of the individual to sacrifice himself for the sake of his species the greatest of all virtues? And did not Christ do just this when he died on the cross not for any particular individual, or group of individuals, or even for the whole of his contemporaries, but for his species which includes all individuals, past, present and future?

Believers in a transcendental Deity, of course, maintain that the individual's self-denying instinct was implanted in him by another worldly Being and that as this instinct is concerned with human relationships it is a different category from those they contemptuously refer to as animal instincts. But there is no evidence in support of this belief. The individual's self-denying instinct is just as natural a phenomenon as his instinct of self-preservation.

All the great religions foster and give "moral" support to the individual's self-denying instinct in its struggle against egoism. By doing so they are not serving some transcendental God but Nature.

Man, having a far wider knowledge of the Universe than any other form of life and reasoning powers with which to make use of this knowledge, is becoming more and more capable of distinguishing between what is favourable to his species and what is not. With his ever increasing powers over the natural order of things he has come to realise that he can, to some extent, change

the course of events if he wishes. He can, if his desire to do so is strong enough, bring about conditions that further the cause of his species.

Why the individual does not consistently strive for the well-being of his species is the fact that his own satisfactions sometimes clash with the satisfactions of his species. This gives rise to tensions within the individual himself. He finds he has two loyalties, one to himself and one to his species.

Awareness of these conflicting interests has caused the individual to develop a "conscience". When he does something which he sees is harmful to his species he has a guilty feeling that he has done something "wrong". When he does something he sees is of benefit to his species he has a feeling of inner satisfaction that he has done something that he "ought" to do.

Why the individual should have a feeling of moral responsibility to his fellow men cannot be explained in rational terms any more than we can explain why he has any other instincts. But we do accept as a fact valid beyond dispute that the individual *has* a duty to his species.

The origin of our feelings of moral responsibility is as unknowable as a first cause. All we can trace it back to is the Will of whatever we believe lies at the heart of things.

If one believes in a transcendental God then this feeling has a "supernatural" origin. If one believes that the Universe is the one and only indivisible reality there is, then this feeling is a natural phenomenon.

For my part, I see this feeling of moral responsibility

as a manifestation of the Spirit of the Universe in its evolutionary drive for better things.

The individual's self-denying instinct is still in a crude primitive stage of development. His concern for his fellow men has never as yet embraced the whole of his species. Early man limited himself to promoting the interests of his family; later to his tribe or community. Present day man extends it to groups which may be national, religious, ethnic, ideological, or to any other group to which he is in close sympathy.

Man's self-denying instinct has made evolutionary progress but until it is widened to cover the whole of his species, past, present, and future, it will never realise its full potentiality.

THE DANGEROUS TREND OF EVOLUTION

And which direction is evolution taking us? Upwards to a more efficient organisation of the matter, mind, and moral feeling that make up the human species, or downwards to a physical, mental, and moral chaos that will eventually lead to extinction?

Our ultimate fate we cannot know, but it is possible to judge from how evolution has worked in the past what is likely to happen in the evolutionary near future.

As we have seen particles of world stuff have organised themselves into matter; from matter has come life; life has developed consciousness; and finally from consciousness has emerged conscience.

There is no reason to believe that evolution will not continue on the same lines in the future as it has in the past; that matter, life, consciousness and conscience will

all continue to become still more complex and more highly organised. But if it does, it seems to me that the human species is in danger of going the way of the dinosaurs.

Man's development has been too uneven for comfort. Physically, he is the least fit of species; mentally, he is a giant, and the conscience in him is still a pulling infant.

Physically, man is making little, if any, progress. On the contrary, if we compare present day man with his primitive forbears there seems to have been a decline. Primitive man *had* to be physically fit. He was not cushioned against the hazards of life as we are. Physical weaknesses on our part give advantages to all the numerous species of germ that seek to destroy us. Science is at present guarding us against this danger, but if our physical fitness declines still further it is conceivable that even science may be overwhelmed by events. Mankind has, on more than one occasion, been decimated by plagues.

Mentally, man is far ahead of any other species and this intellectual superiority has given him vast powers over his environment; powers that can be used either for or against the human species.

The only safeguard we have against the misuse of these powers is that conscious expression of man's instinct to further the cause of his species which we know as conscience. But conscience at present is weak. It needs strengthening against the dark forces of Man's own nature. As Man's knowledge of the Universe increases and with it his powers for either good or ill, the rapid

development of conscience becomes ever more urgent.

If then we have a duty to our species (and surely we have) then we should try, as far as lies in our power, to control the course of Man's development. We should do our best to rectify the uneven way in which evolution has worked by cultivating our physical powers, and by fostering and giving greater heed to conscience, even if by doing so we run the risk of slowing down our mental development.

If we do these things we shall be improving our species, acting in accordance with Nature's evolutionary purpose, and obeying the will of whatever God we believe in.

CHAPTER EIGHT

VALUES

WHEN WE say that a thing has value whether it be a material object, an action, a religious conviction, or even a thought, we attribute to it some quality or qualities which we believe to be desirable. But what is desirable? Is it that which will be of benefit to the human race, either individually or collectively, or is there an objective set or standard of values that is independent of, indifferent or even hostile to human hopes, fears, and ideals?

MEANS AND ENDS

When considering the question of values we ought to keep clear in mind the difference between value as a means to some further end and what is of value as an end-in-itself.

Anything can have value not because it is desirable in itself, but because the qualities we attribute to it will—we hope—help towards some still further desired end.

Medicine, for example, can be unpleasant, but we tolerate it because it promotes good health. The value we seek is not in the medicine, but in our well-being. Medicine is only a "means".

An ultimate "good" or end-in-itself, on the other hand, is one we think, or feel, to be a "good" which carries its own self-justification and not a good which has value because it serves some higher purpose. It is an end-in-itself for the simple reason that we cannot give any reasons why we regard it as a value at all.

Our ends-in-themselves are not rational in the sense that we can justify at the bar of reason why they are of value. Our observational and reasoning powers can point out what is a value as a "means" to an end, but not what is of value as an end-in-itself.

A hedonist may maintain that owing to our psychological make-up it is impossible for us to hold as ultimate any value other than that of human happiness. But the hedonist cannot explain *why* we hold this particular ultimate value. To him it is self-evidently true that human happiness is of ultimate value. But, if pressed, all he can add is that human happiness is obviously something we all *desire*.

A believer in a benevolent God may say that it is the will of God that human beings should be happy. But this is only adding one more reason why human happiness is of value. If asked why the will of God is of ultimate value all he can say is: Because it *is* the will of God.

Both the hedonist and the believer in a benevolent God ultimately come to the point when nothing more can be said in support of their ends-in-themselves.

When we say that a thing is good we should, if we are to avoid confusion between means and ends, ask ourselves, "What is it good for?". If we can find an answer to this question we are dealing only with instrumental good, i.e. means. It is only when no answer is forthcoming to an exhaustive series of "whys" that we have reached the ultimate.

Reason plays its part in providing us with means but not with ends. We can logically and rationally deduce some admirable system of ethics from certain basic principles, but these principles have to be given. Reason must have a starting point from which to operate. All rationally devised ethical codes are of this instrumental value. They are all based on some fundamental belief or assumption that is held intuitively.

DESIRE

Our ultimate values are what we from the bottom of our hearts desire most. They are what we feel to be of value. They are not rational but instinctive desires. They spring from the very roots of our natures and we can only value what it is in our natures to value.

It seems that we have three of these basic desires; the desire to live, the desire to fulfil one's self and the desire to promote the interests of one's species. These desires vary in strength from individual to individual, and which of these desires predominates in any particular individual determines the character of that individual. An individual is what he ultimately values.

All our other desires are only of secondary value. They are only "means" to the satisfying of our ultimate ends.

Our desire to avoid personal danger, for physical and mental fitness, and for all the things and conditions that favour us as individuals, springs from the desire to live, which itself is the outward expression of the individual's instinct of self preservation. Our desire to know Truth, to be able to appreciate beauty when we see it, to gain power over our environment springs from the inner urge to realise ones potentialities, to fulfil one's self. The many and various ways we adopt to satisfy our desire to better relationships between man and man are means towards satisfying the desire of the self-denying instinct to promote the cause of our species. It is only these secondary or instrumental values that have a possible rational basis.

Our instinctive fundamental desires are the dominant factor in all our lives and we always "yield" to whatever desire is at the time uppermost.

This is true even when we have to make ethical judgments. When faced with the dilemma, "I want to do this but I ought to do that" how do we react? The man of strong moral convictions who is tempted to act immorally will resist the temptation. In his case, his desire to lead a moral life will outweigh any satisfaction he may get from an immoral act. Even if he has to decide between renouncing his principles or going to the stake he will, if the desire to stick to his principles is strong enough, choose the stake. He may not regard the stake as desirable, but he will certainly regard it as less undesirable than the renouncing of his principles.

The man of few moral scruples, on the other hand, will act differently. His desire for the pleasures of the

immoral act will overcome his scruples. Even if fear of the consequences of acting immorally restrains him he will still be choosing what to him is the least undesirable course.

The inconsistent man, the man whose values change with time and place, will act in the same way. Circumstances may cause him to act morally on some occasions, but not on others, but in either case he will be governed by the strongest desire prevailing at the time.

However much we may like to think otherwise, we never voluntarily make a sacrifice in the sense of giving up the greater for the lesser. We may sacrifice a sprat in the hopes of catching a whale, but never a whale for the sake of a sprat. Even if the sprat is life itself, that which is desired most always has the last say.

Desire is the driving force behind all our thoughts and actions and nothing can ever be accomplished without it. It is prior both chronologically and fundamentally to Reason. It is not the product of Reason, neither is it governed by Reason. It "instructs" Reason on what is desirable or not. The only function of Reason is to find the means to satisfy Desire.

Although Reason has of necessity to serve Desire it can, and does at times, perform the important service of pointing out that our desires are not always desirable; that some of them have undesirable consequences; that some are in opposition to others, and that if we are to lead balanced satisfactory lives, some of our desires need strengthening, others modifying, and others suppressing.

But no intellectual argument, however logical, how-

ever backed up by verifiable facts, can persuade us to change our opinions and our way of life unless it is preceded by the desire to do so. We hold on to many traditional beliefs and assumptions which, in the light of Reason, are self contradictory and even absurd, because we have no desire to change them. We ignore the findings of Reason because our desire to believe in these traditional beliefs and assumptions is stronger than our desire to be rational.

The most urgent change in our natures that is needed is the strengthening of the desire to be rational. At present we are rational enough in our everyday life but hopelessly irrational in many of our ideas about the nature of the Universe. The more we are prepared to let Reason guide Desire, the more desirable our desires will become.

Not that Reason can, or should, supplant Desire. We have no desire to become cold-blooded calculating machines. Life without Desire, even irrational Desire, would have no meaning.

Desire in itself is a blind, irresistible, and ethically neutral force that will always have the last say. To me it is a manifestation of the desire on the part of the Spirit of the Universe for evolutionary change. Where it will eventually drive us we cannot know. But we do have Reason, if we will but let it, to guide us past the pitfalls on our way.

A RATIONAL CHOICE OF VALUE

If Reason is to be our guide by what criterion is it to judge whether any thought, action, or thing is, or is not, of ultimate value? Reason itself cannot supply these

ends-in-themselves. By its very limitations Reason has to be "given" some self evident truth or truths which are held intuitively before it can operate. Reason can only deal with ultimate values that are *offered* to it.

And what ultimate values are offered to Reason for consideration? It seems to me that there are two sets or orders of ultimate value that are put forward, one based on human desire and one based on the well-being of the Universe as a whole. Why either of these orders of value are ultimate we cannot know. But as we cannot think of them as being of equal merit, it does seem to me that Reason can be fruitfully employed in deciding which is, in the long run, the more desirable.

Human ultimate value is the satisfying of human desire. A human desire may be selfish and immoral, or unselfish and moral, but in either case it has its roots in human desire.

Universal ultimate value on the other hand is that which keeps the Universe as an integrated balanced and progressive whole. It differs from human value in being all-embracing. The satisfying of human desire is of value only to the human species which itself is only a "part" of the Universal All. A Universal value on the other hand is a "good" for the whole of Reality.

When human and Universal values differ or are in opposition to each other which value "ought" to take precedence? Surely there is only one "reasonable" answer to this question and that is the Universal value. Is not the good of the whole greater and more ultimate than the good of the part?

UNIVERSAL VALUES

As I believe that "God is all and all is God" the only universal or objective order of values there can be is that of the Spirit of the Universe itself.

This order or standard of values is not a fixed set of laws and principles valid for all times in all places and under all circumstances. It is not concerned with maintaining things as they are, but with the further organising of the basic world stuff, i.e., with the evolutionary progress of matter, mind, and conscience.

Universal values do not have to be "revealed" to us by some super-natural agent. They are the laws of the natural order of things and can be discovered by a rational scientific study of physical and psychic phenomena. Observation and Reason cannot tell us *why* these universal values are ultimately valuable but it can tell us what they are.

Examples of Universal values taken from different aspects of the universal All are: the smooth working of the mechanical forces of Nature such as gravitation; the individual's instinct of self-preservation; the competition between species which, however destructive of life it may be, preserves the "balance of Nature"; the evolutionary drive in all things which keeps both matter and life from stagnating, and, as a necessary condition of evolutionary progress, the quest for more harmonious relationships between members of the same species.

Human values, however, differ or appear to differ, from these Universal values. We can see value to us in the predictable way in which the forces of gravitation

act; we may see that the evolutionary drive in all things is progressive, and we certainly approve of the quest for better relationships between man and man.

But we do not generally recognise value in the fact that the individual has to struggle for survival and to do so has to slaughter individuals of other species. We do *not* approve of the jungle laws of Nature.

To us there are many "defects" in the Universe and in how it operates and we should all like to see these defects eliminated. But it is impossible to remedy them all. Defects are a necessary part of the Universal structure. An ever changing Universe can never be perfect by human or any other standard, not even by that of the Spirit of the Universe itself. If it ever did or could attain an ideal state it could do so only at an infinitesimal point in time. Immediately afterwards, having changed yet again, it would again be something *less* than perfect. Perfection that does not last for a measurable period of time can never be any other than an unrealisable ideal. Perfection, by any standard, is not, and cannot be, a Universal value.

However dissatisfied we are with present conditions, we should draw comfort from the fact that we are not alone in seeing defects in the Universe. If the all-per-vading Spirit of the Universe wills or causes the Universe to keep changing, is it not fair to suppose that this restless Spirit too is dissatisfied with things as they are?

Our natural propensity to try to remedy what seem to us to be defects in the Universe is in itself in harmony with the Spirit of the Universe. Unfortunately we differ (or seem to differ) from the Spirit of the Universe in what

constitutes a defect. For example, we “feel” that the jungle laws of Nature are a blot on creation, but the Spirit of the Universe certainly does not. It regards these laws as an essential part of the natural order of things and necessary to further the course of evolution.

While we differ from the Spirit of the Universe in what is, or is not, of ultimate value, we can never be entirely at one with this Spirit, and again we have to ask ourselves: Who or what is more likely to know what is of ultimate value to the Universal All (which includes ourselves) we, who are but a fragment of a greater whole, or the greater whole itself?

As Reason gives only one answer to this question and if we are to keep in harmony with the Spirit in all things our values will have to be set aside in favour of Universal values. We “ought” to accept ultimate universal values (jungle laws included) as objective goods transcending the satisfying of our present desires. They are the laws which keep the Universe on its intended course and as such are the laws of God.

OUR HYPOCRITICAL ATTITUDE TO NATURE'S

“BRUTALITIES”

But is there such a cleavage between Universal and human values as appears on the surface? It seems not. We too, whether we acknowledge it or not, benefit from Universal values, even from the jungle laws of Nature.

Our whole attitude to the bestial side of Nature is confused and verges on the hypocritical.

Take the law of the survival of the fittest. As already pointed out, we, the present members of the human

species, are now benefiting from the way this law has operated in the past. These benefits we "ought" to appreciate and not condemn the means that brought them about. These means are God's way of doing things.

Because this law is still in force and is causing some of us to suffer we have no right to say it is a *bad* law. From the point of view of the species it is a *good* law. We condemn this law because we put our interests as individuals before the interests of our species which, to me, is contrary to natural law. Our present sufferings under this law are posterity's "gain". We do not like paying the price of evolutionary progress. All change is painful.

Now consider the divisions of life into species and the necessity for one species to prey on others with all the bloodletting this involves.

A kindly old gentleman (who would not hurt a fly) when saying grace over his mutton chop is, like any other beast of the field, seeking his natural satisfaction at the expense of another species. He does it, of course, in a more civilised manner. He does not chase his sheep, stick his fangs in it, and devour it on the spot. He has it expeditiously despatched in some hygienic slaughter house and served up to him suitably garnished on a plate.

But however "humane" the methods used to provide the old gentleman with his mutton chop is he not in fact living by, and finding satisfaction in, the bloodthirsty laws of Nature? And when saying grace over this same succulent mutton chop is he not thanking his benevolent God for providing him with the flesh of another species?

The old gentleman savouring his mutton chop is engaged in the struggle for survival. In doing so he is acting in accordance with the natural laws of the Universe, i.e., obeying the will of the Spirit of the Universe. He is acting not as a "spiritual" being made in the image of his benevolent God but like any other creature of Nature. However much he likes to think otherwise, he can do no other.

The fact that under natural law each species has a right to seek its own advantage at the expense of other species seems to our present way of thinking to be "immoral". We like to think that *our* kindly humane feelings and *our* sense of justice are applicable to all living creatures. For example, we say that it is wrong to be cruel not only to individuals of our own species, but to individuals of other species. We condemn cruelty in any shape or form.

But although evolutionary progress cannot be made without pain there is nothing in natural law to suggest that cruelty itself is of value. There is no evolutionary gain in cruelty for its own sake. On the contrary an individual of one species who can be deliberately cruel to an individual of another species is a potential menace to individuals of its own species.

But if justice means equality under some universal moral law that is valid for all times and places and under all circumstances then we are not "just" to other species. Take the case of a man who finds a child and a dog in danger. Circumstances are such that he can save only one of them. Which does he choose to save? If he is a normal, rational human being he will of course save the

child. He will do this even if in his considered opinion this particular child is a *bad* child and this particular dog is a *good* dog. The respective merits of the child and the dog will not influence his choice. He values a member of his own species far more than he does a member of any other species. And is it not "natural" for him to do so?

The survival of the fittest and the individual's "selfish" concern for its own species are two of the harsh "immoral" laws of Nature which are of Universal value. As they conduce to the harmonious working of the Universe as a whole they are of inestimable value to the human species which is an integral part of the whole.

In what respect then can our human moral values be superior to the laws of Nature? Are we not deceiving ourselves when we maintain that the satisfying of human desires, however praiseworthy these desires may seem to us, is to be preferred to what is of Universal value?

When we condemn the brutal laws of Nature we are criticising the hand that made us what we are and which still feeds and sustains us.

OUR WRONG APPROACH TO REALITY

One reason why our values differ from Universal values is because we think and evaluate as a collection of individuals and not as a species. Religion has so impressed on us the idea that the individual is an independent unit with a soul to be saved, that we have lost sight of the fact that he is only a part of a greater whole, a part that exists only through its relationships to other individuals

and to the Universe as a whole. No individual is an entity in his own right.

We see, or think we see, "good" in that which conduces to the greatest happiness of the greatest number of individuals, but our greatest number is not the species as a whole. We may concern ourselves with the well-being of our children, our grandchildren, and even our great grandchildren but beyond that we seldom go. Remote posterity is not included in our "greatest number".

The species is something more than the sum of its living parts. We, the present members of the species, even if we include our descendants down to great-grandchildren are only a minority. We are only a minute part of a greater whole and a temporary one at that.

Our immediate well-being does not necessarily result in the well-being of future generations. In fact sometimes the reverse is the case. The French revolution for example must have been disastrous for the people who lived through it, but can we say now that this revolution was not of ultimate benefit to the human race? Did it not rid society of many of its more undesirable elements and enable mankind to surge forward to better things? It had short term disadvantages for the human race but was beneficial in the long run.

Another reason why we do not see eye to eye with the natural order of things is because we have always had a tendency to seek for an understanding of the Universe "outside" the Universe itself. We have studied the Universe of natural things in some detail but have sought for meanings elsewhere. We have sought for explanations of what is mysterious in the natural order of things

(which is the only Reality there is) not in the natural order of things itself, but in a supernatural "other world" that we have set up for ourselves. This transcendental other world on which we harp so much is an illusion. As it is beyond sense experience we have no hard facts about it. We have nothing to say yea or nay to whatever we imagine it to be. For this reason we have filled this empty "space" with our own ideals, i.e., with what we think and feel "ought" to be there. We have projected into it a Father figure a benevolent being who will, sooner or later, satisfy all our desires.

But however comforting it may be to think that we have a "Friend behind phenomena", seeking for truth in the transcendental can never give us an objective view of the Universe. Belief in a benevolent God can never explain away the existence of spastic children and all the other defects we see in Creation. We need to come down to earth and face up to the harsh facts of life before we can ever hope to understand. If there is any meaning in the Universe it will be found *in*, not outside the natural order of things. Fortunately for human progress, there is a growing recognition that supernaturalism has had its day. Slowly—painfully slowly to many—Man is coming to realise that there is less and less that can be attributed to the supernatural and more and more that is natural, and as such open to the probings of Reason. This is how human thought is evolving, will continue to evolve and, as I see it, the evolutionary spirit of the Universe intended it to evolve. There is no going back to the ignorance and superstitions of primitive Man. Even dignitaries of the Church, although they are not prepared

to identify God with Nature, are now saying that the old image of God as a Father figure "up there" is outdated and no longer meets the needs of present day Man.

Thinking of ultimate values as either the greatest happiness of the greatest number or as the Will of some benevolent supernatural God is leading us astray in our search for what is ultimately good. If "God is all and all is God" the only true ultimately ultimate values there can be are those of the Universal All itself.

Why the Spirit of the Universe sees value in the Universe and in the natural laws under which it operates we cannot know. For universal or any other ends-in-themselves no reasons can be given. Even if we could ask the Spirit of the Universe: "Why is the natural order of things of value" the only answer we should get would be, "Because *I am* the natural order of things".

We should accept Universal values as ultimate good without question. Even if we do intuitively and passionately feel that some thought, action or thing *must* be of ultimate value we should set it aside if it clashes with what is of Universal value. The Spirit of the Universe in its role of Mother Nature knows best what is good for both us and the Universe as a whole.

CHAPTER NINE

THE ONE REALITY

IN MY search for certainties I have tried to put facts which can be rationally verified before those offered by intuition. In this I have not altogether succeeded. Neither I nor anyone else can get a completely rational view of the nature of things without many more empirical facts about the material and psychic Universe than are at present available. To sketch in even a bare outline of Reality I have, of necessity, had to dip into the realm of metaphysical nonsense, to accept as true certain propositions that Reason can neither verify nor falsify.

Nevertheless, I am convinced that on the whole my certainties are "reasonable". To me, they fit in better with *all* our experiences than any strictly rational account of the Universe can ever do. Reason can throw a clear light on many aspects of the Universe, but not on all.

For that which Reason cannot penetrate we have to rely on "feeling". But if I have succeeded in doing what I set out to do my certainties are not contradicted by scientific facts.

Now let me summarise the certainties that Reason plus a little intuition have given me.

1. I am convinced that Reality is one and indivisible, that matter and mind are only aspects, or "modes" of this one Reality; that there is no supernatural and that all things and events belong to the one natural order of things. It is this one all embracing Unity that I at least call God.

Although "God is all and all is God" this one Reality is made up of "parts". In it there are both inert matter and living organisms. Living organisms are further divided into species, and species into individuals. But no part is, or ever can be independent of the whole. All things whether living or non-living exist through their relationships to the other parts and to the Universal All.

2. That permeating this Universal All and inseparable from it is Spirit, an immanent driving force that has "purpose" though no foreseeable goal.

3. That this purpose is the further development of basic world stuff into something still more complex, a process of growth and change we know as Evolution.

4. That the uniformities we observe in the natural order of things and call the laws of Nature are necessary laws if evolutionary progress is to be made.

5. That under natural law every species seeks its own advantage regardless of the consequences to other species.

7. That the growth of Conscience in man is a

natural phenomenon arising out of Man's increasing awareness of his duty to his species.

8. That man's destiny lies in his own hands providing he lives by, obeys and sees value in the laws of Nature. Within the framework of these laws he has plenty of scope to manoeuvre. He already "uses" these laws to bring his sheep nearer to his ideal of a sheep and he can, if he will, use these same laws to bring himself nearer to what his intelligence and his conscience tell him he ought to be.

CHANGE OF DESIRE NEEDED

Before we can accept "natural" values as ultimate good we need a radical change in our desires. The ideals we are at present seeking are on the whole what our cultural and religious background have taught us to regard as good. These beliefs are to a large extent derived, not from the hard empirical facts we have discovered about the Universe, but from religious revelation and from custom. These beliefs may be shewn to have a good influence on human conduct, but the truth or otherwise of many of them cannot be verified by Reason.

Now we are finding that many of these traditional goods are inconsistent with, or are contradicted by, our present knowledge of the Universe. But traditional beliefs die hard. Some people shut their minds to anything which is likely to throw doubt on their beliefs, others half believe and are prepared to follow the majority. It is comparatively few who are willing to go the whole hog and adjust their beliefs in the light of modern knowledge.

Fortunately for human progress one of Man's strongest

desires is to know the truth about this mysterious Universe of ours. Reason is coming into its own and the growth of scientific knowledge is making Man realise that many of his traditional assumptions will have to be abandoned. He is coming to see that scientific facts give a better explanation of things than those from tradition. This is engendering in him the desire to know the truth as it appears to Reason and science. He is coming more and more to want to understand before he believes, and to reject the idea that he must believe before he can understand.

Whether or not Man will ever get full satisfactory knowledge from Reason alone is another matter. But it is obvious that in the future Reason is going to play a much larger part in supplying man with his ultimate goods than it has in the past. Faith is giving way to Reason.

REASON VERSUS CONSCIENCE

If through Reason and the scientific method of ascertaining facts we come to believe that the natural Universe is the one Reality; that the evolution of matter, mind, and conscience is the purpose at the heart of this Reality; that the laws of Nature are of value as they serve this purpose, then we come up against the conflicting claims of Reason and Conscience.

Reason may tell us that we should go "back to Nature"; that we should help along the evolutionary process as far as we can, and that to do this we should live by, obey, and see value in the laws of Nature, however brutal some of these laws may seem to us.

To this Conscience may object: If we strictly adhere to the cruel laws of Nature are we not reverting to the primitive brutalities of the animal kingdom? And is this evolutionary "progress"?

But Conscience itself is an evolutionary product brought into being by the working of these same cruel laws of Nature, and when we obey the voice of conscience we are in fact obeying a law of Nature just as we are when we fight for survival. All the laws of Nature are not jungle laws. On the contrary, all the blessings we receive come to us through the working of natural law.

The trouble with our present way of thinking is that we fail to recognise that Conscience is an evolutionary device to promote co-operation and harmony between man and man and not something inspired from without to further the well-being of all forms of life. Where the influence of Conscience does extend beyond the human species it does so only in the interests of the species itself.

Now take another look at what is perhaps the most brutal of Nature's laws, the law of the survival of the fittest.

If we see value in this law and have a duty to evolution are we not under an obligation to get rid of our own unfit? The answer to this question is Yes, *providing that by doing so we do not violate any other law of Nature.*

When dealing with other species, such as domestic animals, we find that the operation of the law of the survival of the fittest has satisfactory results. We ourselves cull out and get rid of the weaklings and breed only from the fit. The fittest in this case, of course, being

those domestic animals which best cater for the needs and satisfactions of the human species. The sheep which provides the most nourishing and tasty mutton chop is, in our eyes, the fittest.

But although we see value in the law of the survival of the fittest when applied to other species, we do not approve of it when applied to the human species. We are not prepared to smother our own mal-formed offspring for the sake of evolutionary progress or for any other reason. Conscience forbids.

We have then an apparent clash between two laws of Nature, the one seeking to destroy the unfit, the other to preserve them.

Now neither Nature nor Conscience objects to our killing off the unfit of other species. In fact, Conscience looks on many of these killings as "acts of mercy". But Nature does insist that we look after our own unfortunates. It is for this reason that it has developed Conscience and the human conscience at least does not distinguish between the fit and the unfit. On the contrary, it has a tendency to favour the weak at the expense of the strong. To get rid of our own unfit, whatever we may do to the unfit of other species, is to violate Conscience and to do this is to act contrary to that humane law of Nature that categorically demands that we should look after all the members of our species whether fit or unfit. Mother Nature will do all the weeding out necessary.

But the problem of eliminating weaknesses in the human species cannot be left entirely to Nature. Owing to the growth of medical science many of the unfit who,

if the brutal side of nature had its way, would die while young, are now being enabled to live, grow, and reproduce themselves. This, as every breeder of livestock knows, leads to a deterioration of the species. It not only perpetuates defects in the species, but also the suffering that goes with them.

Now Conscience abhors suffering and to satisfy it we "ought" to cut down the amount of suffering as much as we can. The only way we can do this without getting rid of the unfit altogether is to make it impossible for these unfortunates to pass on their defects to future generations. Sterilisation of the unfit is the only means we have of satisfying Conscience and at the same time adhering to Nature's law of the survival of the fittest.

Another problem that is coming to the fore through science "interfering" with Nature's weeding out process is that of over-population. Many well meaning men are becoming alarmed at the prospect of population outstripping food supply. To try to prevent this they are advocating the widespread use of birth control.

But this is not Nature's way of restoring the "balance of Nature". Birth control is the denying of life to both the fit and the unfit; to potential Shakespeares as well as to the mentally deficient. If Nature had her way there would be many births. The weeding out would take place afterwards. And in the long run is not Nature's the better way of improving the species?

It does seem that to satisfy both the brutal and the humane demands of Nature the problem of over-population like that of deterioration in the species will have to be solved by sterilisation.

Man is not as yet ready to face up to the twin problems of deterioration in the species and of over-population, both of which have been brought about not by science itself but (according to Nature) by the misapplication of it. At present no one is prepared to draw a line between the fit and the unfit and to say: Below this line there is to be no reproduction.

But sooner or later Man will have to do something about these growing twin "evils". And he will have to make his own decisions. It is no use appealing to some transcendental benevolent God to solve his problems for him. Man will, if he is wise, be guided by what Nature has to say. If he does not, sooner or later Mother Nature will have her revenge.

WHAT'S IN A NAME

In this little book I have emphasised the most far reaching of all my certainties, my conviction that Reality is one and indivisible. Matter, Mind, and Conscience (in that order) have all "emerged" from some primeval world stuff, and all three must have been potential in this world stuff from the "beginning of time". How then can there be a Cartesian dualism of matter and mind or a supernatural distinction between mind and conscience if all three have a common origin? To me all things and events, whether physical, mental, or psychic, are only parts, modes, or manifestations of a greater whole.

And what more appropriate name to give to this Whole of Whole than God? To this, however, I can see objections being raised; the humanist, on account of the association in men's minds of the idea of God with

religious obscurantism; religions, on the ground that this vast impersonal whole of whole is not what *they* mean by God.

But the only valid criticism that can be made to the use of this word is that of our sceptic. He may, quite rightly, point out that if there is no supernatural all things and events must be "natural", and the only reality, Nature.

But it all depends on what one means by Nature. If our sceptic uses this word to mean *all that is*, I agree with him. But we do not usually use this word in this comprehensive sense. Although we think of, say, an earthquake, as a "natural" event, we do not usually regard molten lava or the movement of the earth's crust as belonging to Nature. Nature in common usage is limited to living things, to flora and fauna. If we take the latter definition Nature is only a "part" of the whole, and the whole is something more than the sum of its parts.

No one has a monopoly of the use of the word God. In fact, unless we do identify God with all that is, with both the good and evil, what we mean by God must always be something *less* than the whole of Reality. I prefer to think that "God is all, and all is God".

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